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Active on construction sites since 1963, King Packaged Materials Company is proud to present its division devoted entirely to the conservation and restoration of heritage buildings.

Working within a well-established budget, our mission is to participate in the preservation of built heritage by offering the best products, skills and techniques in the field of masonry restoration.

At KING, we manufacture and distribute a range of products made from a variety of sands mixed with binders which have historical characteristics, such as hydrated lime, hydraulic lime or natural cement. Our highly qualified team is composed of honest and competent individuals who can guide you through your project, every step of the way.

The Château Frontenac in Quebec City, the Canadian Parliament in Ottawa and the Saskatchewan Parliament in Regina are just a few examples of projects in which the KING team’s expertise was enlisted.

Want to learn more about the products and skills required in masonry restoration? Do you need help with a project or want to get training at our training centre located in Boisbriand, Quebec? Contact us today!

Thank you for your trust in the KING team.

Note:
The content of this binder is updated continuously. In order to ensure that you are referencing our most recent information, please visit our website at www.kpmindustries.com.
HLM-500

HLM-500 is a pre-blended, pre-packaged mortar specifically designed for use with clay, concrete and stone masonry units within the context of an historic preservation project or of a new sustainable construction project (LEED). HLM-500 mortar is a blend of natural hydraulic lime (St-Astier), hydrated type S lime and masonry sand. It is available in off white, but can also be blended with a variety of coloring agents.

FEATURES & BENEFITS
• Does not contain cement.
• Excellent resistance to freeze-thaw cycles.
• Excellent resistance to de-icing salts.
• Excellent vapour transmission and auto-healing properties.
• Very low shrinkage.
• Pre-blended, ensuring consistency from the first batch to the last.
• All KING products are manufactured using ISO 9001:2008 Certified Processes.

USES
• Ideal for use in laying clay, concrete and stone masonry units in repair of historic buildings or monuments.
• Ideal for use in laying clay, concrete and stone masonry units in the context of a new sustainable construction (LEED).
• Can be applied indoors and outdoors.
• Can be used as a repointing mortar.

PROCEDURES
Mixing:
HLM-500 mortar should be mixed with 5.5 litres (1.45 US gallon) of potable water per 30 kg (66 lb.) bag, in a clean paddle mixer. Add 5.0 litres (1.3 US gallon) of water into the mixer along with 30 kg (66 lb.) of HLM-500 mortar and mix for 3-5 minutes. If a coloring agent is required, add to mixer and continue mixing for an additional 5 to 10 minutes. Use the remaining water to adjust the mix in order to obtain the desired consistency.

TECHNICAL DATA
The following data is representative of typical values achievable under laboratory conditions according to CSA A-179-04. Results in the field may vary.

<table>
<thead>
<tr>
<th>COMPRESSION STRENGTH</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CSA A23.2-8A</td>
<td></td>
</tr>
<tr>
<td>7 Day</td>
<td>1.0 MPa (145 psi)</td>
</tr>
<tr>
<td>28 Day</td>
<td>2.2 MPa (320 psi)</td>
</tr>
<tr>
<td>90 Day</td>
<td>3.5 MPa (510 psi)</td>
</tr>
<tr>
<td>365 Day</td>
<td>4.5 MPa (650 psi)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AIR CONTENT</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTM C 231</td>
<td>8-15%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FLOW</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTM C 1437</td>
<td>100 - 115 %</td>
</tr>
</tbody>
</table>

OPTIMUM PERFORMANCE
• The substrate and mortar temperature should be between 5°C and 38°C (40°F and 100°F) and maintained in this range for 10 days after mortar application. NOTE: If the temperature will be under 0°C in 90 days following the end of the cure, protect the mortar against snow and water for the entire period where the temperature will be under 0°C or use the RosenMix 500.
• Never add water to regain lost workability. Just mix again.
• Never use on-site admixtures to modify setting time, workability, or any other properties of plastic or hardened mortar.

YIELD
30 kg (66 lb.) bag contains approximately 0.018 m³ (0.65 ft³) of fresh mortar.

PACKAGING
HLM-500 mortar is normally packaged in 30 kg (66 lb.) triple lined bags and poly wrapped on wooden pallets. All KING products can be custom packaged to suit specific job requirements.

STORAGE AND SHELF LIFE
Material should be stored in a dry covered area protected from the elements. Unopened bags have a shelf life of 12 months.

SAFETY PROCEDURES
HLM-500 mortar contains natural hydraulic lime (St-Astier) and hydrated lime. Normal safety-wear such as rubber gloves, dust mask and safety glasses used to handle conventional cement based products should be worn. Material Safety Data Sheets are available upon request.

Curing is essential to optimize physical properties of the mortar. After material has reached initial set, continuously moist cure for a period of 7 days.
HYDRAULIC LIME MORTAR - DIVISION 04

HLM-500
ROSEN MIX 500

KING RosenMix 500 is a pre-blended, pre-packaged mortar made from 100% natural binders, specifically designed for use in applications of new construction or restoration. This product is a blend of natural cement, Type S hydrated lime, masonry sand and other carefully selected components. RosenMix 500 is ochre in color, but can also be blended with a variety of coloring agents.

FEATURES & BENEFITS
• Rapid setting time.
• Excellent workability.
• Excellent durability.
• Low modulus of elasticity.
• Pre-blended, ensuring consistency from the first batch to the last.
• All KING products are manufactured using ISO 9001:2008 Certified Processes.

USES
• Ideal for masonry applications where a rapid setting time is important.
• Ideal for use where the protection times are short.
• Can be used for laying bricks or for repointing.
• Can be applied indoors, outdoors or for any other masonry application.

PROCEDURES
Mixing:
For best results, add a maximum of 6.2 litres (1.58 US gallon) of potable water per 30 kg (66 lb.) of RosenMix 500 in a clean mortar mixer. Pour 5.5 litres (1.32 US gallon) in the mixer, then add 30 kg (66 lb.) of RosenMix 500 and mix for 3 to 5 minutes. If a coloring agent is required, add to mixer and continue mixing for an additional 5 to 10 minutes. Add only enough of remaining water to bring mix to desired consistency.

Caution:
Use mortar within 45 minutes following mixing. After 10 minutes without mixing, if the mortar has lost its workability, simply mix again without adding water. After 45 minutes, any unused mortar must be discarded. Do not add water to the mortar after the initial set has begun.

Curing:
Curing is essential to optimize physical properties of the mortar. After material has reached initial set, continuously moist cure for a period of 3 days.

TECHNICAL DATA
The following data is representative of typical values achievable under laboratory conditions. Results in the field may vary.

<table>
<thead>
<tr>
<th>MINIMAL COMPRESSIVE STRENGTH</th>
<th>7 day</th>
<th>2 MPa (290 psi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 day</td>
<td>5 MPa (725 psi)</td>
<td></td>
</tr>
<tr>
<td>90 day</td>
<td>10 MPa (1450 psi)</td>
<td></td>
</tr>
</tbody>
</table>

FLOW
105 + - 5%

AIR CONTENT
8% to 15%

OPTIMUM PERFORMANCE
• The substrate and mortar temperature should be between 5 and 38°C (40 and 100°F) and maintained in this range for 72 hours after mortar application.
• Never use on-site admixtures to modify setting time, workability, or any other properties of plastic or hardened mortar.
• Use only the recommended water content to achieve the desired plastic and hardened mortar properties.

YIELD
30 kg (66 lb.) bag contains approximately 0.018 m³ (0.65 ft³) of fresh mortar.

PACKAGING
RosenMix 500 is normally packaged in 30 kg (66 lb.) triple lined bags and poly wrapped on wooden pallets. All KING products can be custom packaged to suit specific job requirements.

STORAGE AND SHELF LIFE
Material should be stored in a dry covered area protected from the elements. Unopened bags have a shelf life of 12 months.

SAFETY PROCEDURES
RosenMix 500 contains natural cement and lime. Normal safety-wear such as rubber gloves, dust mask and safety glasses used to handle conventional cement based products should be worn. Material Safety Data Sheets are available upon request.

Note: The contents of this data sheet are updated regularly. To ensure that you have the most recent version, please visit our website at the following address: www.king-masonry.com

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NATURAL CEMENT MORTAR - DIVISION 04

ROSENMIX 500
PHL-500

KING PHL-500 mortar is a pre-blended and pre-bagged mortar specially designed to be used when laying bricks, blocks, stones and other masonry units within the context of an historic preservation project or of a new sustainable construction project (LEED). PHL-500 mortar is a blend of Pozzolanic lime, hydrated type S lime, an air entraining agent, and masonry sand. It is off white in color, but can also be blended with a variety of coloring agents.

FEATURES & BENEFITS
• Does not contain cement.
• Better salt-scaling resistance than hydrated lime.
• Excellent vapour transmission and auto-healing properties.
• Very low shrinkage.
• Pre-blended, ensuring consistency from the first batch to the last.
• All KING products are manufactured using ISO 9001:2008 Certified Processes.

USES
• Ideal for use in laying clay, concrete and stone masonry units in repair of historic buildings or monuments.
• Ideal for use in laying clay, concrete and stone masonry units in the context of new sustainable construction (LEED).
• Can be applied indoors and outdoors.
• Can be used as a repointing mortar when higher compressive strengths are required.

PROCEDURES
Mixing:
PHL-500 mortar should be mixed with 5.5 litres (1.45 US gallons) of potable water per 30 kg (66 lb.) bag, in a clean paddle mixer. Add 5.0 litres (1.3 US gallons) of water into the mixer along with 30 kg (66 lb.) of PHL-500 mortar and mix for 3-5 minutes. If a coloring agent has been added continue mixing for an additional 5 to 10 minutes. Use the remaining water to adjust the mix in order to obtain the desired consistency.

Curing:
Curing is essential to optimize physical properties of the mortar. After material has reached initial set, continuously moist cure for a period of 3 to 7 days.

TECHNICAL DATA*

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow</td>
<td>ASTM C 1437 100 - 115%</td>
</tr>
<tr>
<td>Compressive Strength</td>
<td></td>
</tr>
<tr>
<td>CSA A23.2-8A</td>
<td></td>
</tr>
<tr>
<td>7 Day</td>
<td>1.7 MPa</td>
</tr>
<tr>
<td>28 Day</td>
<td>3.2 MPa</td>
</tr>
<tr>
<td>90 Day</td>
<td>5.2 MPa</td>
</tr>
<tr>
<td>Air Content</td>
<td>18% Maximum</td>
</tr>
<tr>
<td>Water Retention</td>
<td>75% Minimum</td>
</tr>
<tr>
<td>Vapour Transmission</td>
<td>28 Perms</td>
</tr>
</tbody>
</table>

*These figures have been obtained in a lab
BEDDING MORTAR - DIVISION 04

PHL-500
MASONMIX

MasonMix is a pre-blended, pre-packaged Type O Mortar specifically designed for use in applications of non-load bearing wall applications. This mortar is a blend of cementitious materials, Type S hydrated lime, masonry sand and other carefully selected components. MasonMix conforms to CSA A 179-04 (Annex A, Table A3) for type O mortar with the addition of water. It is available in grey, cream and white, but can also be blended with a variety of coloring agents.

FEATURES & BENEFITS

• High vapor transmission properties.
• Superior workability.
• Autogeneous healing properties.
• Low strength.
• Pre-blended, ensuring consistency from the first batch to the last.
• All KING products are manufactured using ISO 9001:2008 Certified Processes.

USES

• Ideal for use in non load bearing wall applications.
• Can be applied indoors, outdoors or for any other masonry application where low strength and superior workability is required.

PROCEDURES

Mixing:

For best results, add a maximum of 5 litres (1.3 US gallon) of potable water per 30 kg (66 lb.) bag into a clean mortar mixer. Pour 4.5 litres (1.2 US gallon) of water in the mixer, then add the MasonMix and mix for 3 to 5 minutes. If a coloring agent is required, add to mixer and continue mixing for an additional 5 to 10 minutes. Add only enough of remaining water to bring mix to desired consistency.

TECHNICAL DATA

The following data is representative of typical values achievable under laboratory conditions according to CSA A 179-04 (Annex A, Table A3) for type O. Results in the field may vary.

<table>
<thead>
<tr>
<th>COMPRESSIVE STRENGTH (MINIMUM)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7 Days</td>
<td>1.5 MPa (217 psi)</td>
</tr>
<tr>
<td>28 day</td>
<td>2.4 MPa (350 psi)</td>
</tr>
</tbody>
</table>

FLOW

100-115%

AIR CONTENT

18 % Maximum

WATER RETENTION

75 % Minimum

OPTIMUM PERFORMANCE

• Do not use the MasonMix when type N mortar or type S mortar is specified. In this case, it is recommended to use KING 1-1-6 or KING 2-1-9, respectively.
• The substrate and mortar temperature should be between 5°C and 38°C (40°F and 100°F) and maintained in this range for 72 hours after mortar application.
• Never use on-site admixtures to modify setting time, workability, or any other properties of plastic or hardened mortar.
• Use only the recommended water content to achieve the desired plastic and hardened mortar properties.

YIELD

30 kg (66 lb.) bag contains approximately 0.018 m³ (0.65 ft³) of fresh mortar.

PACKAGING

MasonMix is normally packaged in 30 kg (66 lb.) triple lined bags and poly wrapped on wooden pallets. All KING products can be custom packaged to suit specific job requirements.

STORAGE AND SHELF LIFE

Material should be stored in a dry covered area protected from the elements. Unopened bags have a shelf life of 12 months.

SAFETY PROCEDURES

MasonMix contains Portland cement and lime. Normal safety-wear such as rubber gloves, dust mask and safety glasses used to handle conventional cement based products should be worn. Material Safety Data Sheets are available upon request.

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MASONMIX 600

MasonMix 600 is a pre-blended, pre-packaged mortar, specifically designed for use in applications of non load bearing wall. MasonMix 600 is a blend of 1 part of Portland cement, 2 parts of Type S hydrated lime, 6 parts of masonry sand and other carefully selected components. MasonMix 600 conforms to ASTM C270 for Type O mortar, by volume, with the addition of water. It is available in grey, cream and white, but can also be blended with a variety of coloring agents.

FEATURES & BENEFITS
- High vapor transmission properties.
- Superior workability.
- Autogeneous healing properties.
- Low strength.
- Pre-blended, ensuring consistency from the first batch to the last.
- All KING products are manufactured using ISO 9001:2008 Certified Processes.

USES
- Ideal for use in non load bearing wall applications.
- Can be applied indoors, outdoors or for any other masonry application where low strength and superior workability is required.

PROCEDURES
Mixing:
For best results, add a maximum of 5.0 liters (1.3 US gallon) of potable water per 30 kg (66 lb.) bag into a clean mortar mixer. Pour 4.0 liters (1.0 US gallon) of water then add the MasonMix and mix for 3 to 5 minutes. If a coloring agent is required, add to mixer and continue mixing for an additional 5 to 10 minutes. Add only enough of remaining water to bring mix to desired consistency.

TECHNICAL DATA
The following data is representative of typical values achievable under laboratory conditions. Results in the field may vary.

<table>
<thead>
<tr>
<th>COMPRESSION STRENGTH</th>
<th>7 Day</th>
<th>3 MPa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>28 Day</td>
<td>5 MPa</td>
</tr>
<tr>
<td>FLOW</td>
<td></td>
<td>100 to 115%</td>
</tr>
<tr>
<td>AIR CONTENT</td>
<td></td>
<td>18% Maximum</td>
</tr>
<tr>
<td>WATER RETENTION</td>
<td></td>
<td>70% Minimum</td>
</tr>
</tbody>
</table>

OPTIMUM PERFORMANCE
- Do not use the MasonMix 600 when mortar type N or S is specified. In this case, it is recommended to use the King 1-1-6 or King 2-1-9.
- The substrate and mortar temperature should be between 5 and 38°C (40 and 100°F) and maintained in this range for 72 hours after mortar application.
- Never use on-site admixtures to modify setting time, workability, or any other properties of plastic or hardened mortar.
- Use only the recommended water content to achieve the desired plastic and hardened mortar properties.

YIELD
30 kg bag contains approximately 0.018m³ (0.65ft³) of fresh mortar.

PACKAGING
MasonMix 600 is normally packaged in 30 kg (66 lb.) triple lined bags and poly wrapped on wooden pallets. All KING products can be custom packaged to suit specific job requirements.

SAFETY PROCEDURES
MasonMix 600 contains Portland cement and lime. Normal safety-wear such as rubber gloves, dust mask and safety glasses used to handle conventional cement based products should be worn. Material Safety Data Sheets are available upon request.

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HERITAGE BUILDING SOLUTIONS

RELATED MORTARS - DIVISION 04

MASONMIX 600
KING MasonMix 700 is a pre-blended, pre-packaged mortar. It is a blend of Portland cement, Type S hydrated lime, masonry sand and other carefully selected components. MasonMix 700 is grey, cream or white in color, but can also be blended with a variety of coloring agents.

**FEATURES & BENEFITS**
- High vapor transmission properties.
- Superior workability.
- Autogeneous healing properties.
- Medium strength.
- Pre-blended, ensuring consistency from the first batch to the last.
- All KING products are manufactured using ISO 9001:2008 Certified Processes.

**USES**
- Ideal for use in non load bearing wall applications.
- Can be applied indoors, outdoors or for any other masonry application where low strength and superior workability is required.
- Can be used as a repointing mortar.

**PROCEDURES**
**Mixing: Bedding mortar**
For best results, add a maximum of 4.5 liters (1.2 US gallon) of potable water per 30 kg (66 lb.) into a clean mortar mixer. Pour 3.6 liters (1.0 US gallon) of water then add the MasonMix 700 and mix for 3 to 5 minutes. If a coloring agent is required, add to mixer and continue mixing for an additional 5 to 10 minutes. Add only enough of remaining water to bring mix to desired consistency.

**Mixing: Repointing mortar**
For best results, add a maximum 3.8 litres (1.13 US gallon) of potable water per 30 kg (66 lb.) bag into a clean mortar mixer. Gradually add MasonMix 700 to water and mix, operating until the mix is heavy bodied enough to retain it's shape when fashioned by hand into a ball. Wait approximately 30 minutes before the application.

**TECHNICAL DATA**
The following data is representative of typical values achievable under laboratory conditions. Results in the field may vary.

**BEDDING MORTAR:**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FLOW</strong> (ASTM C 109)</td>
<td>105-115%</td>
</tr>
<tr>
<td><strong>COMPRESSIVE STRENGTH</strong> (MINIMUM)</td>
<td></td>
</tr>
<tr>
<td>7 day</td>
<td>4.0 MPa (580 psi)</td>
</tr>
<tr>
<td>28 day</td>
<td>5.3 MPa (769 psi)</td>
</tr>
<tr>
<td><strong>AIR CONTENT</strong></td>
<td>18% Maximum</td>
</tr>
<tr>
<td><strong>WATER RETENTION</strong></td>
<td>70% Minimum</td>
</tr>
</tbody>
</table>

**REPOINTING MORTAR:**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VICAT CONE</strong> (ASTM C 780)</td>
<td>15mm +/- 5mm</td>
</tr>
<tr>
<td><strong>COMPRESSIVE STRENGTH</strong> (MINIMUM)</td>
<td></td>
</tr>
<tr>
<td>7 day</td>
<td>5.0 MPa (725 psi)</td>
</tr>
<tr>
<td>28 DAY</td>
<td>9.0 MPa (1305 psi)</td>
</tr>
<tr>
<td><strong>AIR CONTENT</strong></td>
<td>18% Maximum</td>
</tr>
</tbody>
</table>

**OPTIMUM PERFORMANCE**
- The substrate and mortar temperature should be between 5 and 38°C (40 and 100°F) and maintained in this range for 72 hours after mortar application.
- Never use on-site admixtures to modify setting time, workability, or any other properties of plastic or hardened mortar.
- Use only the recommended water content to achieve the desired plastic and hardened mortar properties.

**YIELD**
30 kg (66 lb.) bag contains approximately 0.018 m$^3$ (0.65 ft$^3$) of fresh mortar.

**PACKAGING**
MasonMix 700 is normally packaged in 30 kg (66 lb.) triple lined bags and poly wrapped on wooden pallets. All KING products can be custom packaged to suit specific job requirements.

**STORAGE AND SHELF LIFE**
Material should be stored in a dry covered area protected from the elements. Unopened bags have a shelf life of 12 months.

**SAFETY PROCEDURES**
MasonMix 700 contains Portland cement and lime. Normal safety-wear such as rubber gloves, dust mask and safety glasses used to handle conventional cement based products should be worn. Material Safety Data Sheets are available upon request.

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RELATED MORTARS - DIVISION 04

MASONMIX 700
REPOINTING MORTARS
HYDRAULIC LIME MORTAR - DIVISION 04

HLM-350

HLM-350 is a pre-blended, pre-packaged mortar specifically designed for use in repointing historic buildings or for restoration of sustainable and LEED projects. HLM-350 mortar is a blend of natural hydraulic lime (St-Astier) and masonry sand. It is available in off white, but can also be blended with a variety of coloring agents.

FEATURES & BENEFITS
- Does not contain cement.
- Excellent resistance to freeze-thaw cycles.
- Excellent resistance to de-icing salts.
- Excellent vapour transmission and auto-healing properties.
- Very low shrinkage.
- Pre-blended, ensuring consistency from the first batch to the last.
- All KING products are manufactured using ISO 9001:2008 Certified Processes.

USES
- Ideal for use in repointing historic buildings or monuments.
- Ideal for use in repointing more recent, sustainable construction (LEED).
- Can be applied indoors and outdoors.

PROCEDURES
Mixing:
HLM-350 mortar should be mixed with 4.5 litres (1.2 US gallon) of potable water per 30 kg (66 lb.) bag, in a clean paddle mixer. Add 4.0 litres (1.05 US gallon) of water into the mixer along with 30 kg (66 lb.) of HLM-350 mortar and mix for 3-5 minutes. If a coloring agent is required, add to mixer and continue mixing for an additional 5 to 10 minutes. Use the remaining water to adjust the mix in order to obtain the desired consistency.

TECHNICAL DATA
The following data is representative of typical values achievable under laboratory conditions according to CSA A-179-04. Results in the field may vary.

COMPRESSION STRENGTH

<table>
<thead>
<tr>
<th>Age (Days)</th>
<th>CSA A23.2-8A (MPa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>0.7 MPa (100 psi)</td>
</tr>
<tr>
<td>28</td>
<td>1.8 MPa (260 psi)</td>
</tr>
<tr>
<td>90</td>
<td>2.7 MPa (390 psi)</td>
</tr>
<tr>
<td>120</td>
<td>3.0 MPa (435 psi)</td>
</tr>
<tr>
<td>365</td>
<td>3.5 MPa (510 psi)</td>
</tr>
</tbody>
</table>

AIR CONTENT

| ASTM C 231 | 8-15% |

FLOW

| ASTM C 1437 | < 80 % |

VICAT CONE

| ASTM C 780 | 15 mm ± 5 mm |

SHRINKAGE

| ASTM C 596 | 0.05% |

PLACING

Clean the area to be repaired, removing all loose material equivalent to 2 times the thickness of the joint. Moisten the area to be repaired with potable water, leaving the masonry unit saturated but free of standing water. Place HLM-350 mortar into the joint in successive layers to a maximum depth of 6 mm (¼ inch). Compact well and let dry slightly before adding additional layers. Tool the joints prior to setting. Finish joints.

CURING

Curing is essential to optimize physical properties of the mortar. After material has reached initial set, continuously moist cure for a period of 7 days.

OPTIMUM PERFORMANCE
- HLM-350 mortar should not be used for bedding of concrete masonry units. In this case, please refer to HLM-500 mortar or KING 1-1-6.
- The substrate and mortar temperature should be between 5°C and 38°C (40°F and 100°F) and maintained in this range for 10 days after mortar application. NOTE: If the temperature will be under 0°C in 90 days following the end of the cure, protect the mortar against snow and water for the entire period where the temperature will be under 0°C or use the RosenMix 350.
- Never add water to regain lost workability. Just mix again.
- Never use on-site admixtures to modify setting time, workability, or any other properties of plastic or hardened mortar.

YIELD

30 kg (66 lb.) bag contains approximately 0.018 m³ (0.65 ft³) of fresh mortar, enough to repoint approximately 90 linear meters (300 ft).

PACKAGING

HLM-350 mortar is normally packaged in 30 kg (66 lb.) triple lined bags and poly wrapped on wooden pallets. All KING products can be custom packaged to suit specific job requirements.

STORAGE AND SHELF LIFE

Material should be stored in a dry covered area protected from the elements. Unopened bags have a shelf life of 12 months.

SAFETY PROCEDURES

HLM-350 mortar contains natural hydraulic lime (St-Astier). Normal safety-wear such as rubber gloves, dust mask and safety glasses used to handle conventional cement based products should be worn. Material Safety Data Sheets are available upon request.

Note: The contents of this data sheet are updated regularly. To ensure that you have the most recent version, please visit our website at the following address: www.king-masonry.com

This product is designed to meet the performance specifications outlined in this product data sheet. If the product is used in conditions for which it was not intended, or applied in a manner contrary to the written recommendations contained in the product data sheet, the product may not reach such performance specifications. The foregoing is in lieu of any other warranties, representations or conditions, expressed or implied, including, but not limited to, implied warranties or conditions of merchantable quality or fitness for particular purposes, and those arising by statute or otherwise in law or from a course of dealing or usage of trade.
HYDRAULIC LIME MORTAR - DIVISION 04

HLM-350
ROSENMIX 350

KING RosenMix 350 is a pre-blended, pre-packaged mortar made from 100% natural binders, specifically designed for use in applications of repointing. This product is a blend of natural cement, Type S hydrated lime, masonry sand and other carefully selected components. RosenMix 350 is ocher in color, but can also be blended with a variety of coloring agents.

FEATURES & BENEFITS
• Rapid setting time.
• Excellent workability.
• High resistance to de-icing salts.
• Excellent durability.
• Low modulus of elasticity.
• Pre-blended, ensuring consistency from the first batch to the last.
• All KING products are manufactured using ISO 9001:2008 Certified Processes.

USES
• Ideal for masonry applications where a rapid setting time is important.
• Ideal for use where the protection times are short.
• Can be applied indoors, outdoors or for any other masonry application.

PROCEDURES
Mixing:
For best results, add a maximum of 5.3 liters (1.32 US gallons) of potable water per 30 kg (66 lb.) of RosenMix 350 into a clean mortar mixer. Mix the product, operating until the mix is heavy bodied enough to retain it’s shape when fashioned by hand into a ball. If only a small quantity of mortar is necessary, it is important to first mix the whole dry content of the bag in a clean container. Afterwards, water can be added to obtain the required amount of mortar.

Caution:
Use mortar within 45 minutes following mixing. After 10 minutes without mixing, if the mortar has lost its workability, simply mix again without adding water. After 45 minutes, any unused mortar must be discarded. Do not add water to the mortar after the initial set has begun.

Placing:
Clean the area to be repaired, removing all loose material on a thickness corresponding to 2 times the thickness of the joint. Moist the area to be repaired with potable water, leaving the concrete saturated but free of standing water (SSD). Place RosenMix 350 into the joint in successive layers to a maximum depth of 6 mm (¼ inch). Compact well before adding additional layers. Tool the joints prior to final set time.

TECHNICAL DATA
The following data is representative of typical values achievable under laboratory conditions. Results in the field may vary.

<table>
<thead>
<tr>
<th>MINIMUM COMPRESSIVE STRENGTH</th>
<th>7 day</th>
<th>1 MPa (145 psi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 day</td>
<td>3.5 MPa (508 psi)</td>
<td></td>
</tr>
<tr>
<td>90 day</td>
<td>7 MPa (1015 psi)</td>
<td></td>
</tr>
</tbody>
</table>

VICAT CONE
ASTM C 780 25mm (+- 5mm)

AIR CONTENT
ASTM C 231 8% to 15%

Initial setting time: 2:00
Final setting time: 2:30

OPTIMUM PERFORMANCE
• The substrate and mortar temperature should be between 5 and 38°C (40 and 100°F) and maintained in this range for 72 hours after mortar application.
• Never use on-site admixtures to modify setting time, workability, or any other properties of plastic or hardened mortar.
• Use only the recommended water content to achieve the desired plastic and hardened mortar properties.

YIELD
30 kg (66 lb.) bag contains approximately 0.018m$^3$ (0.65ft$^3$) of fresh mortar.

PACKAGING
RosenMix 350 is normally packaged in 30 kg (66 lb.) triple lined bags and poly wrapped on wooden pallets. All KING products can be custom packaged to suit specific job requirements.

STORAGE AND SHELF LIFE
Material should be stored in a dry covered area protected from the elements. Unopened bags have a shelf life of 12 months.

SAFETY PROCEDURES
RosenMix 350 contains natural cement and lime. Normal safety-wear such as rubber gloves, dust mask and safety glasses used to handle conventional cement based products should be worn. Material Safety Data Sheets are available upon request.

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V1014
ROSEMIX 350
PHL-350

PHL-350 is a pre-blended, pre-packaged mortar specifically designed for use in repointing historical building and monument. This mortar is a blend of Pozzolanic Hydraulic Lime (PHL), an air entraining agent and sand. It is buff in color but can also be blended with a variety of iron pigments.

FEATURES & BENEFITS

• Does not contain cement.
• Better salt-scaling resistance than hydrated lime.
• Excellent vapour-water transmission.
• Low shrinkage.
• Pre-blended, ensuring consistency from the first batch to the last.
• All KING products are manufactured using ISO 9001:2008 Certified Processes.

USES

• Ideal for repointing buildings originally built before 1920.
• Can be applied indoors and outdoors, where low compressive strengths are required.

PROCEDURES

Mixing:
Mix the PHL-350 with a maximum of 4.5 liters (1.18 US gallons) of potable water per 30 kg (66 lb) into a clean mortar mixer. Poor 4 liters (1 US gallon) into the mixer and gradually add the PHL-350. Mix for 3-5 minutes or 5-10 minutes if an iron pigment has been add. With the remaining water adjust the mix to obtain the desired consistency.

Placing:
Clean the area to be repointed, removing all loose material on a thickness corresponding to 2 times the thickness of the joint. Moist the area to be repointed with potable water without leaving stagnant water. Place the PHL-350 into the joint in successive layers to a maximum depth of 6mm (¼ inch). Compact well and let dry slightly before adding additional layers. Tool the joint prior to setting.

Curing:
Curing is essential to optimize physical properties of the mortar. After material has reached initial set, continuously moist cure for a period of 3 to 7 days.

TECHNICAL DATA*

| VICAT CONE | 19 mm |
|VAPOUR TRANSMISSION| ASTM E-96| 25 Perms |

*These figures have been obtained in a lab

OPTIMUM PERFORMANCE

• Do not use PHL-350 for the installation of masonry elements. In this case, it is recommended to use PHL-500 or HLM-500 mortar.
• The substrate and mortar temperature should be maintained between 5 and 38 °C (40 and 100 °F) for 72 hours after mortar application.
• Never add water to recover lost workability. In this case, simply mix again.
• Never use on-site admixtures to modify setting time, workability or any other properties of plastic or hardened mortar.

YIELD

30 kg bag contains approximately 0.018m³ (0.65ft³) of fresh mortar.

PACKAGING

King PHL-350 is normally packaged in 30 kg (66 lb) triple lined bags and poly wrapped on wooden pallets. All KING products can be custom packaged to suit specific job requirements.

STORAGE AND SHELF LIFE

Material should be stored in a dry, covered area, protected from the elements. Unopened bags have a shelf life of 12 months.

SAFETY PROCEDURES

Normal safety-wear such as rubber gloves, dust mask and safety glasses used to handle conventional cement based products should be worn. Safety Data Sheets are available upon request.

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V0318
PHL-350
MASONCARE 300

MasonCare 300 is a pre-blended, pre-packaged Type O mortar specifically designed for use in repointing and non-load-bearing wall applications. This mortar is a blend of Portland cement, Type S hydrated lime, masonry sand and other carefully selected components. MasonCare 300 conforms to ASTM C270 for Type O mortar with the addition of water. It is grey in color, but can also be blended with a variety of coloring agents.

FEATURES & BENEFITS
• High bond strength.
• High vapor transmission properties.
• Superior workability.
• Autogenous healing properties.
• Low strength.
• Pre-blended, ensuring consistency from the first batch to the last.
• All KING products are manufactured using ISO 9001:2008 Certified Processes.

USES
• Ideal for use in repointing.
• Can be applied indoors, outdoors or for any other masonry application where low strength and superior workability is required.

PROCEDURES
Mixing:
For best results, add a maximum of 4.3 litres (1.13 US gallon) of potable water per 30 kg (66 lb.) bag into the mixer. Gradually add MasonCare 300 to water and mix with either a paddle or drill mixer, operating until the mix is heavy bodied enough to retain it’s shape when fashioned by hand into a ball. Wait approximately 30 minutes before the application. It is important to mix the entire content of the bag.

Placing:
Clean the area to be repaired, removing all loose material at a thickness corresponding to 2 times the thickness of the joint. Moisten the area to be repaired with potable water, leaving the old masonry unit saturated but free of standing water (SSD). Place MasonCare 300 into the joint in successive layers to a maximum depth of 6 mm (¼ inch). Compact well and let dry slightly before adding additional layers. Tool the joints prior to final set time in order to optimize carbonation.

Curing:
Curing is essential to optimize the physical properties of mortar. Curing is performed by using a wet cure that must start from the initial set of the mortar and continue for a period of three days.

TECHNICAL DATA
The following data is representative of typical values achievable under laboratory conditions according to ASTM C270 for Type O Mortar. Results in the field may vary.

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FLOW</strong></td>
<td>110 +/- 5 %</td>
</tr>
<tr>
<td><strong>AIR CONTENT</strong></td>
<td>14 % Maximum</td>
</tr>
<tr>
<td><strong>WATER RETENTION</strong></td>
<td>75 % Minimum</td>
</tr>
<tr>
<td><strong>VAPOUR TRANSMISSION</strong></td>
<td>ASTM E-96 25 Perms</td>
</tr>
<tr>
<td><strong>BOND STRENGTH</strong></td>
<td>CSA A23.2-6B 0.75 MPa (110 psi)</td>
</tr>
</tbody>
</table>

OPTIMUM PERFORMANCE
• MasonCare 300 should not be used where Type N or S mortar is specified.
• For applications requiring conventional Type N Mortar, please refer to KING 1-1-6. For applications requiring conventional Type S Mortar, please refer to KING 2-1-9.
• The substrate and mortar temperature should be between 5°C and 38°C (40°F and 100°F) and maintained in this range for 10 days after mortar application. NOTE: If the temperature will be under 0°C in 90 days following the end of the cure, protect the mortar against snow and water for the entire period where the temperature will be under 0°C or use the RosenMix 350.
• MasonCare 300 should be moisture cured for a period of 3 days.
• Never use on-site admixtures to modify setting time, workability, or any other properties of plastic or hardened mortar.
• Use only the recommended water content to achieve the desired plastic and hardened mortar properties.

YIELD
30 kg (66 lb.) bag contains approximately 0.018m³ (0.65ft³) of fresh mortar, enough to repoint approximately 90 linear meters (300 ft).

PACKAGING
MasonCare 300 is normally packaged in 30 kg (66 lb.) triple lined bags and poly wrapped on wooden pallets. All KING products can be custom packaged to suit specific job requirements.

STORAGE AND SHELF LIFE
Material should be stored in a dry covered area protected from the elements. Unopened bags have a shelf life of 12 months.

SAFETY PROCEDURES
MasonCare 300 contains Portland cement and lime. Normal safety-wear such as rubber gloves, dust mask and safety glasses used to handle conventional cement based products should be worn. Material Safety Data Sheets are available upon request.

Note: The contents of this data sheet are updated regularly. To ensure that you have the most recent version, please visit our website at the following address: www.king-masonry.com
MASONCARE 300

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V0115
MASONCARE 1258

The MasonCare 1258 is a pre-blended, pre-packaged mortar specifically designed for use on historical buildings and monuments. This mortar is a blend of 1 part of white Portland cement, 2.5 parts of hydrated lime type SA and 8 parts of sand. It is cream in color but can also be blended with a variety of iron pigments.

FEATURES & BENEFITS
• Excellent vapor-water transmission.
• Superior workability.
• Excellent autogeneous healing properties.
• Pre-blended, ensuring consistency from the first batch to the last.
• Manufactured to meet the ISO 9001:2000 Quality Standards.

USES
• Ideal for repointing historic buildings and monuments.
• Can be applied indoors and outdoors.

PROCEDURES
Mixing:
For best results, add 3.9 litres (1.0 US gallon) of potable water per 30 kg (66 lb.) bag into the mixer. Gradually add MasonCare 1258 to water and mix with either a paddle or drill mixer, operating until the mix is heavy bodied enough to retain its shape when fashioned by hand into a ball. Wait approximately 30 minutes before the application.

Placing:
Clean the area to be repaired, removing all loose material at a thickness corresponding to 2 times the thickness of the joint. Moisten the area to be repaired with potable water, leaving the concrete saturated but free of standing water (SSD). Place MasonCare 1258 into the joint in successive layers to a maximum depth of 6 mm (¼ inch). Compact well and let dry slightly before adding additional layers. Tool the joints prior to final set time in order to optimize carbonation.

TECHNICAL DATA *

<table>
<thead>
<tr>
<th>COMPRESSIVE STRENGTH</th>
<th>ASTM C-270</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 days 2.0 MPa</td>
<td>28 days 4.0 MPa</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AIR</th>
</tr>
</thead>
<tbody>
<tr>
<td>14% Maximum</td>
</tr>
</tbody>
</table>

*These figures have been obtained in a lab

OPTIMUM PERFORMANCE
• The substrate and mortar temperature should be between 5 and 38°C (40 and 100°F) and maintaining in this range for 72 hours after mortar application.
• The MasonCare 1258 should be moisture cured for a period of 3 days.
• Never use on-site admixtures to modify setting time, workability or any other properties of the plastic or hardened mortar.

YIELD
• 30 kg bag contains approximately 0.018m³ (0.65ft³) of fresh mortar. One 30 kg bag can repoint approximately 90 linear meters (300 ft) of joint.

PACKAGING
King MasonCare 1258 is normally packaged in 30 kg (66 lb) triple lined bags and poly wrapped on wooden pallets. All KING products can be custom packaged to suit specific job requirements.

STORAGE AND SHELF LIFE
Material should be stored in a dry covered area protected from the elements. Unopened bags have a shelf life of 12 months.

SAFETY PROCEDURES
MasonCare 1258 contains Portland cement and lime. Normal safety-wear such as rubber gloves, dust mask and safety glasses used to handle conventional cement based products should be worn. Material Safety Data Sheets are available upon request.

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V1016
MASONCARE 1258
RECONSTEC 900 - REPOINTING

Repointing mortar for sandstone, limestone, granite and brick.

DESCRIPTION
Reconstec 900 is a specially formulated mortar for repointing natural stone mortar joints. It is recommended to restore joints at ground level and above grade and where de-icing salts are used during the winter. It is made of a special hydraulic cement, silica sand, river washed sand and mineral additives. This product does not include a bonding agent and is not polymer integrated.

ADVANTAGES
- High water retention (twice that of a typical type S hydrated lime based mortar).
- Non-shrink (even at bedding consistence for laying brick).
- Strong bond capability.
- No curing required.
- Not a vapor barrier, completely breathable.
- Very good freeze-thaw resistance.
- Easy to use.
- Pigmented versions available.

TECHNICAL DATA
Application time:
Approximately 15 minutes after mixing. Application time is temperature dependent. Higher temperatures result in a faster set time, and less available time for application.

COMPRESSION STRENGTH
ASTM C 109
28 day (MPa)
<table>
<thead>
<tr>
<th>Sandstone</th>
<th>Limestone</th>
<th>Granite</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 MPa to 3 MPa</td>
<td>2 MPa to 5 MPa</td>
<td>10 MPa to 16 MPa</td>
</tr>
</tbody>
</table>

SPECIFIC GRAVITY
<table>
<thead>
<tr>
<th>Sandstone</th>
<th>Limestone</th>
<th>Granite</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4</td>
<td>1.6</td>
<td>1.8</td>
</tr>
</tbody>
</table>

COVERAGE
<table>
<thead>
<tr>
<th>lineal metre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandstone</td>
</tr>
<tr>
<td>142 m (10 mm joints at 10 mm deep per 20 kg pail.)</td>
</tr>
<tr>
<td>Limestone</td>
</tr>
<tr>
<td>125 m</td>
</tr>
<tr>
<td>Granite</td>
</tr>
<tr>
<td>110 m</td>
</tr>
</tbody>
</table>

PACKAGING
One plastic pail contains 20 kg (44 lb).

MIXING RATIO
The mixing ratio is approximately 5 parts powder to 1 part water by volume.

FINISHING TIME
Approximately 30 minutes after mixing, depending on temperature, relative humidity and the type of finish desired.

SHELF LIFE
1 year in original, unopened pail.

SURFACE PREPARATION
Remove impurities, deteriorated mortar and any other bond inhibiting materials from the surface. The joints must be raked and cleaned to a depth of at least 1 cm (½ inch) - preferably 2 cm (¼ inch).

MIXING
The mixing ratio is approximately 5 parts powder to 1 part water. Use a clean container. Pour water into mixing container. The mixing may be done by hand or using a slow speed drill (300 rpm-450 rpm) with a mixing paddle. The mortar should be the consistency of damp sand. Do not add too much water. Do not over mix. Working time is approximately 15 minutes.

APPLICATION & FINISHING
Wet the cleaned joints just before applying the mortar, just enough to dampen the surface. Use appropriate pointing tools to achieve a finish similar to the original joint profile. The mortar should be firmly pressed to form a packed joint free of voids.

CLEAN UP
Remove the mortar from tools and mixing equipment with water. Cured material can only be removed mechanically.

CAUTION
Avoid eyes contact and prolonged contact with skin. May cause irritation to sensitive skin. In case of skin or eye contact, wash thoroughly with water.
Avoid breathing the dust. In case of contact with the eyes, consult a doctor.

KEEP OUT OF REACH OF CHILDREN.

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HERITAGE BUILDING SOLUTIONS

RECONSTEC 900 - REPOINTING

RECONSTEC 900 - REPOINTING
HL-5 GROUT

HL-5 grout is a pre-blended, pre-packaged hydraulic lime based injection grout specifically designed for consolidation or the filling of voids in historical masonry walls and foundations. HL-5 is a blend of natural hydraulic lime (St-Astier) and other carefully selected components.

FEATURES & BENEFITS
- Can be pumped or gravity fed.
- Can be applied indoors and outdoors.
- Extremely fluid with no segregation and no bleeding.
- Excellent bond strength.
- Pre-blended, ensuring consistency from the first batch to the last.
- All KING products are manufactured using ISO 9001:2008 Certified Processes.

USES
KING HL-5 injection grout is specifically designed for consolidating and filling voids in historical masonry walls and foundations.

PROCEDURES
Mixing:
HL-5 grout should be mixed with a maximum of 13.5 litres (3.4 US gallons) of potable water per 20 kg (44 lb) bag. Add 10 litres (2.6 US gallons) of water into a high shear mixer along with one 20 kg (44 lb) bag of HL-5 grout and mix 3-5 minutes. Use the remaining water to adjust the mix in order to obtain the desired consistency.

Placing:
Make sure that all masonry joints are tight. Install injection tubes horizontally and vertically every 300 mm. Start injecting from the bottom. Once the grout starts to flow out of the above port, switch to that port and plug the bottom port. The grout should be agitated regularly.

TECHNICAL DATA
The following data is representative of typical values achievable under laboratory conditions. Results in the field may vary.

<table>
<thead>
<tr>
<th>Compressive Strength</th>
<th>7 day</th>
<th>2.5 MPa (365 psi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 day</td>
<td>4.0 MPa (580 psi)</td>
<td></td>
</tr>
<tr>
<td>90 day</td>
<td>5.0 MPa (725 psi)</td>
<td></td>
</tr>
</tbody>
</table>

| Bleeding & Segregation | 0% |

| Flow | ASTM C 942 | 10-30 seconds |

OPTIMUM PERFORMANCE
- HL-5 grout should not be used as a bedding mortar for masonry units. For applications requiring bedding of masonry units, please refer to KING masonry mortars.
- The substrate and grout temperature should be between 5°C and 38°C (40°F and 100°F) and maintained in this range for 10 days after the grout application.

YIELD
20 kg (44 lb) bag contains approximately 0.02 m³ (0.66 ft³) of fresh grout.

PACKAGING
HL-5 grout is normally packaged in 20kg (44lb.) triple line bags, poly wrapped on wooden pallets. All KING products can be custom packaged to suit specific job requirements.

STORAGE AND SHELF LIFE
Material should be stored in a dry covered area protected from the elements. Unopened bags have a shelf life of 12 months.

SAFETY PROCEDURES
HL-5 Grout contains natural hydraulic lime (St-Astier). Normal safety-wear such as rubber gloves, dust mask and safety glasses used to handle conventional cement based products should be worn. Material Safety Data Sheets are available upon request.

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HL-5 GROUT
KING LS

KING LS is a pre-blended, pre-packaged grout, with low compressive strength, specifically designed for injection, in order to replace or in addition of existing mortar or grout, into masonry affected by movements or any type of loss. This mix is a blend of cementitious material, masonry sand and other carefully selected components.

FEATURES & BENEFITS
• Low compressive strength.
• Can be poured, pumped or injected.
• Can be used indoors or outdoors.
• Economical.
• Pre-blended, ensuring consistency from the first batch to the last.
• All KING products are manufactured using ISO 9001:2008 Certified Processes.

USES
• KING LS is a grout specifically designed to fill voids in masonry walls. Its low density minimizes the impact of injection into the building envelope.

PROCESSES
Mixing:
KING LS should be mixed with a maximum of 6.6 litres (1.7 US gallon) of potable water per 30 kg (66 lb.) bag. In a clean container, pour 5.5 litres (1.5 US gallon) of water, then add the contents of the bag while mixing with a drill with a “Jiffler” type mixer (see:www.jifflermixer.com) mixing tip. It is important to mix the entire content of the bag. If necessary, add remaining water until obtaining a mixture with enough fluidity for injection.

Placing:
Make sure that all masonry joints are tight. Install injection tubes horizontally and vertically every 300 mm (12 in). Start injecting from the bottom. Once the grout starts to flow out of the above port, switch to that port and plug the bottom port. The grout should be agitated regularly.

Note: This product contains sand. Injection tubes should be chosen taking this in consideration.

TECHNICAL DATA
The following data is representative of typical values achievable under laboratory conditions. Results in the field may vary.

COMPRESSIVE STRENGTH
ASTM- C109
7 Day 3.5 MPa (510 psi)
28 Day < 10.0 MPa (1450 psi)

BLEEDING AND SEGREGATION
ASTM C 940 < 2 %

MINIMUM SLUMP FLOW
100 to 200 mm

OPTIMUM PERFORMANCE
• KING LS should not be used as a bedding mortar for masonry units. For applications requiring bedding of masonry units, please refer to KING masonry mortars.
• The substrate and mortar temperature should be between 5°C and 38°C (40°F and 100°F) and maintained in this range for 72 hours after the grout application.
• Never use on-site admixtures to modify setting time, workability, or any other properties of plastic or hardened grout.
• Only use the recommended amount of water to obtain the plastic or hardened properties of the grout.

YIELD
30 kg (66 lb.) bag contains approximately 0.018 m³ (0.65 ft³) of fresh grout.

PACKAGING
KING LS is normally packaged in 30 kg (66 lb.) triple lined bags or bulk bags, poly wrapped on wooden pallets. All KING products can be custom packaged to suit specific job requirements.

SAFETY PROCEDURES
KING LS grout contains cement. Normal safety-wear such as rubber gloves, dust mask and safety glasses used to handle conventional cement based products should be worn. Material Safety Data Sheets are available upon request.

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MASONRY GROUT - DIVISION 04

KING LS
RPL-6

The RPL-6 is a pre-blended, pre-packaged low compressive strength grout, specifically designed for injection into masonry structures affected by movement or any type of section loss. RPL-6 grout can be used in replacement or in addition to an existing mortar or grout used in a masonry structure. The RPL-6 is composed of Portland cement, hydrated type S lime, sand and other carefully selected components.

FEATURES & BENEFITS
• High fluidity.
• Low compressive strength.
• Can be poured, pumped or injected.
• Can be used indoors or outdoors.
• Economic.
• Pre-blended, ensuring consistency from the first batch to the last.
• All KING products are manufactured using ISO 9001:2008 Certified Processes.

USES
The RPL-6 is specifically designed to fill voids in masonry walls and foundations. The low plastic density of the RPL-6 minimizes the impact of injection on the building envelope. The high fluidity coupled with the small maximum particle size allows RPL-6 to easily infiltrate into small openings.

PROCEDURES
Mixing:
The RPL-6 should be mixed with a maximum of 8.5 liters (2.25 US gallons) of potable water per 30 kg (66 lb.) bag. In a clean container, pour 7.5 liters (2.00 US gallons) of water then add the contents of the bag while mixing with a drill equipped with a “Jiffier” type mixing tip (see: www.jifflermixer.com). It is important to mix the entire contents of the bag. If necessary, add the remaining water until the mixture is fluid enough for injection.

Placing:
Make sure that all masonry joints are tight. Install injection tubes horizontally and vertically every 300 mm (1 ft). Start injecting from the bottom. Once the grout starts to flow out of the above port, switch to that port and plug the bottom port. The grout should be agitated regularly.

Note: The RPL-6 contains sand. The injection tube diameter must be considered prior to pumping.

TECHNICAL DATA
The following data is representative of typical values achievable under laboratory conditions. Results in the field may vary.

<table>
<thead>
<tr>
<th>COMPRESSIVE STRENGTHS (MINIMUM)</th>
<th>ASTM- C109</th>
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<tr>
<td>7 Day</td>
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<td>28 Day</td>
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<th>BLEEDING &amp; SEGREGATION</th>
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<tbody>
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<td>10-30 seconds</td>
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</tbody>
</table>
GROUT - DIVISION 04

RPL-6
RECONSTEC 700 - INJECTION GROUT

Injection grout.

DESCRIPTION
Reconstec 700 is a cement based, high performance, specially designed grout for injection into cracks ranging from 1.5 mm to 2.5 mm. The grout is to be used in the stabilization and rehabilitation of cracked masonry and concrete. Non-shrink with very good bonding properties to substrates. Contains no synthetic polymers.

ADVANTAGES
- Gravity-feed or pressure-injection.
- Deep penetrating and tenacious bonding of cracks.
- Very good adhesion to dry or wet substrates.
- Not a vapor barrier, completely breathable.
- Excellent fluidity.
- No shrinkage.
- No sedimentation.
- Easy to use.
- Rapid set.
- Non-corrosive.
- Pigmented versions available.

TECHNICAL DATA
Application time: Approximately 15 minutes after mixing. Application time is dependent on temperature. Higher temperature will require a faster application than with cooler temperatures.

COMPRESSIVE STRENGTH
ASTM C 109
28 day 50 MPa (7300 psi)

TENSILE BONDING STRENGTH
ASTM C 882 10 MPa (1500 psi)

VISCOSITY
600-1000 cps

MIXING RATIO
The mixing ratio is approximately 4 parts powder to 1 part water by volume.

DENSITY
2,000 kg / m³

PACKAGING
One plastic pail contains 20 kg (44 lb).

SHELF LIFE
1 year in original, unopened pail.

SURFACE PREPARATION
The surface must be clean and solid. It can be dry or wet. Remove all impurities, dirt, grease, and other bond inhibiting materials from the surface. Preparation work should be done using manual or pneumatic cutting techniques. Set appropriate injection ports. Seal the cracks and the injection ports with the appropriate Reconstec mortar.

MIXING
The mixing ratio is approximately 4 parts powder to 1 part water. Use a clean container. Pour water into mixing container. The mixing may be done by hand or using a slow speed drill (300 rpm-450 rpm) with a mixing paddle. The grout should be the consistency of syrup. Do not add too much water initially during mixing. Do not over mix. Working time is approximately 10 minutes.

APPLICATION & FINISHING
For injection work, use plastic cartridges. Inject grout to the lowest port and proceed upwards. The grout is injected into a series of injection ports along the length of crack. Injection continues at a given port until it flows out of the next one. The port is then sealed off and injection is started at the next port and so on until the full length of the crack has been treated. Remove ports after curing and patch with the appropriate Reconstec mortar.

CLEAN UP
Remove the mortar from tools and mixing equipment with water. Cured material can only be removed mechanically.

CAUTION
Avoid eyes contact and prolonged contact with skin. May cause irritation to sensitive skin. In case of skin or eye contact, wash thoroughly with water. Avoid breathing the dust. In case of contact with the eyes, consult a doctor. KEEP OUT OF REACH OF CHILDREN.

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V1014
RECONSTEC 700F - INJECTION GROUT

Injection grout.

DESCRIPTION
Reconstec 700F is a cement based, high performance, specially designed grout for injection into cracks ranging from 0.5 mm to 2 mm. The grout is to be used in the stabilization and rehabilitation of cracked masonry and concrete. Non-shrink with very good bonding properties to substrates. Contains no synthetic polymers.

ADVANTAGES
• Gravity-feed or pressure-injection.
• Deep penetrating and tenacious bonding of cracks.
• Very good adhesion to dry or wet substrates.
• Not a vapor barrier, completely breathable.
• Excellent fluidity.
• No shrinkage.
• No sedimentation.
• Easy to use.
• Rapid set.
• Non-corrosive.
• Pigmented versions available.

TECHNICAL DATA
Application time:
Approximately 10 minutes after mixing. Application time is temperature dependent. Higher temperatures result in a faster set vs lower temperatures.

COMPRESSIVE STRENGTH
ASTM C 109
28 day 50 MPa (7300 psi)

TENSILE BENDING STRENGTH
ASTM C 882 10 MPa (1500 psi)

VISCOSITY
600-1000 cps

MIXING RATIO
The mixing ratio is approximately 4 parts powder to 1 part water by volume.

DENSITY
2,000 kg / m³

PACKAGING
One plastic pail contains 20 kg (44 lb).

SHELF LIFE
1 year in original, unopened pail.

SURFACE PREPARATION
The surface must be clean and solid. It can be dry or wet. Remove all impurities, dirt, grease, and other bond inhibiting materials from the surface. Preparation work should be done using manual or pneumatic cutting techniques. Set appropriate injection ports. Seal the cracks and the injection ports with the appropriate Reconstec mortar.

MIXING
The mixing ratio is approximately 4 parts powder to 1 part water. Use a clean container. Pour water into mixing container. The mixing may be done by hand or using a slow speed drill (300 rpm-450 rpm) with a mixing paddle. The grout should be the consistency of syrup. Do not add too much water at the beginning of mixing. Do not over mix. Working time is approximately 10 minutes.

APPLICATION & FINISHING
When injecting, choose plastic cartridges. Inject grout to the lowest port and proceed upwards. The grout is injected into a series of injection ports along the length of crack. Injection continues at a given port until it flows out of the next one. The port is then sealed off and injection started at the next port and so on until the full length of the crack has been treated. Remove ports after curing and patch with the appropriate reconstec mortar.

CLEAN UP
Remove the mortar from tools and mixing equipment with water. Cured material can only be removed mechanically.

CAUTION
Avoid eyes contact and prolonged contact with skin. May cause irritation to sensitive skin. In case of skin or eye contact, wash thoroughly with water. Avoid breathing the dust. In case of contact with the eyes, consult a doctor. KEEP OUT OF REACH OF CHILDREN.

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V1014
RECONSTEC 700M - INJECTION GROUT

Injection grout.

DESCRIPTION
Reconstec 700M is a cement based, high performance, specially designed grout for injection into cracks ranging from 2.5 mm to 5 mm. The grout is to be used in the stabilization and rehabilitation of cracked masonry and concrete. Non-shrink with very good bonding properties to substrates. Contains no synthetic polymers.

ADVANTAGES
- Gravity-feed or pressure-injection.
- Deep penetrating and tenacious bonding of cracks.
- Very good adhesion to dry or wet substrates.
- Not a vapor barrier, completely breathable.
- Excellent fluidity.
- Non-shrink.
- No sedimentation.
- Easy to use.
- Rapid set.
- Non-corrosive.
- Pigmented versions available.

TECHNICAL DATA
Application time:
Approximately 10 minutes after mixing. Application time is temperature dependent. Higher temperatures result in a quicker set, and less time allowed for application of product.

COMPRESSIVE STRENGTH
ASTM C 109
28 day 50 MPa (7300 psi)

TENSILE BONDING STRENGTH
ASTM C 882 10 MPa (1500 psi)

VISCOSITY
600-1000 cps

MIXING RATIO
The mixing ratio is approximately 4 parts powder to 1 part water by volume.

DENSITY
2,000 kg / m³

PACKAGING
One plastic pail contains 20 kg (44 lb).

SHELF LIFE
1 year in original, unopened pail.

SURFACE PREPARATION
The surface must be clean and solid. It can be dry or wet. Remove all impurities, dirt, grease, and other bond inhibiting materials from the surface. Preparation work should be done using manual or pneumatic cutting techniques. Set appropriate injection ports. Seal the cracks and the injection ports with the appropriate Reconstec mortar.

MIXING
The mixing ratio is approximately 4 parts powder to 1 part water. Use a clean container. Pour water into mixing container. The mixing may be done by hand or using a slow speed drill (300 rpm-450 rpm) with a mixing paddle. The grout should be the consistency of syrup. Do not add too much water initially. Do not over mix. Working time is approximately 10 minutes.

APPLICATION & FINISHING
For injection work, use plastic cartridges. Inject grout to the lowest port and proceed upwards. The grout is injected into a series of injection ports along the length of the crack. Injection continues at a given port until it flows out of the next one. The port is then sealed off and injection is started at the next port and so on until the full length of the crack has been treated. Remove ports after curing and patch with the appropriate Reconstec Mortar.

CLEAN UP
Remove the mortar from tools and mixing equipment with water. Cured material can only be removed mechanically.

CAUTION
 Avoid eyes contact and prolonged contact with skin. May cause irritation to sensitive skin. In case of skin or eye contact, wash thoroughly with water. Avoid breathing the dust. In case of contact with the eyes, consult a doctor. KEEP OUT OF REACH OF CHILDREN.

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V1014
RECONSTEC 700M - INJECTION GROUT

RECONSTEC 700M - INJECTION GROUT
RECONSTEC 100 - GRANITE

Granite restoration mortar.

DESCRIPTION
Reconstec 100 is a mortar specially designed for the restoration of granite. Non-shrink with a very good bond to granite. Easily applied to clean, sound substrates. May be feather edged. Contains no synthetic polymers.

ADVANTAGES
• The same coefficient of thermal expansion as granite.
• Uses Granite aggregate.
• Very good adhesion to substrates.
• Not a vapor barrier, completely breathable.
• Good freeze-thaw resistance.
• Easy to use.
• Short curing time.
• Pigmented versions available.

TECHNICAL DATA

Application time:
Approximately 15 minutes after mixing. Application time is dependent on temperature. Higher temperature will require a faster application than with cooler temperatures.

COMPRESSIVE STRENGTH
ASTM C 109
1 day 40 MPa (5800 psi)
7 day 80 MPa (11600 psi)
28 day 90 MPa (13100 psi)

FLEXURAL STRENGTH
ASTM C 348
14.5 MPa (2103 psi)

MODULUS OF ELASTICITY
ASTM C 469
27.5 GPa (4000000 psi)

BOND STRENGTH
ASTM C 882 (MODIFIED)
13.3 MPa (1930 psi)

LINEAR COEFF. OF THERMAL EXPANSION
7 to 8 x 10^-6/°C

LENGTH CHANGE
ASTM C 157
0.005 to 0.010 % (28 day)

ABSORPTION
0.5 to 1.5 %

SPECIFIC GRAVITY
2.2

MIXING RATIO
The mixing ratio is approximately 5 parts powder to 1 part water by volume.

FINISHING TIME
Approximately 2 hours after mixing. Finishing time will depend on temperature of substrate, humidity and type of finish desired.

PACKAGING
One plastic pail contains 20 kg (44 lb).

SHELF LIFE
1 year in original, unopened pail.

SURFACE PREPARATION
Remove all impurities, dirt, grease, and other bond inhibiting materials from the surface. Preparation work should be done using manual or pneumatic cutting techniques. Dampen surface to be repaired with clean water.

MIXING
The mixing ratio is approximately 5 parts powder to 1 part water. Use a clean container. Pour water into mixing container. The mixing may be done by hand or using a slow speed drill (300 rpm-450 rpm) with a mixing paddle. The mortar should be the consistency of damp sand. Do not add too much water. Do not over mix. Working time is approximately 15 minutes.

APPLICATION & FINISHING
Mortar must be scrubbed into substrate, filling all pores and voids. Use a steel trowel. Force material against edge of repair, working toward the centre. For best results use Reconstec 100 without aggregate as a first layer. When the mortar is hard use stone cutting tools to achieve desired finish.

CURING
Curing is not necessary.

CLEAN UP
Remove the mortar from tools and mixing equipment with water. Cured material can only be removed mechanically.

CAUTION
Avoid eyes contact and prolonged contact with skin. May cause irritation to sensitive skin. In case of skin or eye contact, wash thoroughly with water. Avoid breathing the dust. In case of contact with the eyes, consult a doctor. KEEP OUT OF REACH OF CHILDREN.

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RECONSTEC 200 - SANDSTONE

Sandstone restoration mortar.

DESCRIPTION
Reconstec 200 is a mortar specially designed for the restoration of sandstone. Non-shrink with a very good bond to sandstone. Easily applied to clean, sound substrates. May be feather edged. Contains no synthetic polymers.

ADVANTAGES
• The same coefficient of thermal expansion as sandstone.
• Very good adhesion to substrates.
• Not a vapor barrier, completely breathable.
• Good freeze-thaw resistance.
• Easy to use.
• No curing.
• Pigmented versions available.

TECHNICAL DATA
Application time: Approximately 15 minutes after mixing. Application time is dependent on temperature. Higher temperature will require a faster application than with cooler temperatures.

COMPRESSION STRENGTH
ASTM C 109
1 day 12 MPa (1750 psi)
7 day 25 MPa (3600 psi)
28 day 30 MPa (4350 psi)

FLEXURAL STRENGTH
ASTM C 348 8.5 MPa (1233 psi)

MODULUS OF ELASTICITY
ASTM C 469 11.7 to 12.8 GPa
(1700000 to 1850000 psi)

BOND STRENGTH
ASTM C 882 (MODIFIED) 11.2 MPa (1625 psi)

LINEAR COEFFICIENT OF THERMAL EXPANSION
10.5 to 11.5 x 10^-6/°C

LENGTH CHANGE
ASTM C 157 0.005 to 0.010 % (28 day)

SPECIFIC GRAVITY
1.6

MIXING RATIO
The mixing ratio is approximately 5 parts powder to 1 part water by volume.

FINISHING TIME
Approximately 1 hour after mixing. Finishing time will depend on temperature of substrate, humidity and type of finish desired.

PACKAGING
One plastic pail contains 20 kg (44 lb).

SHELF LIFE
1 year in original, unopened pail.

SURFACE PREPARATION
Remove all impurities, dirt, grease, and other bond inhibiting materials from the surface. Preparation work should be done using manual or pneumatic cutting techniques. Dampen surface to be repaired with clean water.

MIXING
The mixing ratio is approximately 5 parts powder to 1 part water. Use a clean container. Pour water into mixing container. The mixing may be done by hand or using a slow speed drill (300 rpm-450 rpm) with a mixing paddle. The mortar should be the consistency of damp sand. Do not add too much water. Do not over mix. Working time is approximately 15 minutes.

APPLICATION & FINISHING
Mortar must be scrubbed into substrate, filling all pores and voids. Use a steel trowel. Force material against edge of repair, working toward the centre. When the mortar is the consistency of dry sand, screed to desired finish.

CURING
Curing is not necessary.

CLEAN UP
Remove the mortar from tools and mixing equipment with water. Cured material can only be removed mechanically.

CAUTION
Avoid eye contact and prolonged contact with skin. May cause irritation to sensitive skin. In case of skin or eye contact, wash thoroughly with water. Avoid breathing the dust. In case of contact with the eyes, consult a doctor.

KEEP OUT OF REACH OF CHILDREN.

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V1014
RECONSTEC 200 - SANDSTONE

RECONSTEC 200 - SANDSTONE
RECONSTEC 250 - SANDSTONE

Sandstone restoration mortar.

DESCRIPTION
Reconstec 250 is a mortar specially designed for the restoration of sandstone. Non-shrink with a very good bond to sandstone. Easily applied to clean, sound substrates. Contains no synthetic polymers.

ADVANTAGES
• The same coefficient of thermal expansion as sandstone.
• Very good adhesion to substrates.
• Not a vapor barrier, completely breathable.
• Good freeze-thaw resistance.
• Easy to use.
• Pigmented versions available.

TECHNICAL DATA
Application time:
Approximately 1 hour after mixing. Application time is dependent on temperature. Higher temperature will require a faster application than with cooler temperatures.

COMPRESSIVE STRENGTH
ASTM C 109
3 day 12 MPa (1750 psi)
7 day 18 MPa (2600 psi)
28 day 26 MPa (3780 psi)

FLEXURAL STRENGTH
ASTM C 348
8.5 MPa (1233 psi)

MODULUS OF ELASTICITY
ASTM C 469
11.7 to 12.8 GPa
(1700000 to 1850000 psi)

BOND STRENGTH
ASTM C 882 (MODIFIED)
11.2 MPa (1625 psi)

LINEAR COEFF. OF THERMAL EXPANSION
10.5 to 11.5 x 10^-6/°C

LENGTH CHANGE
ASTM C 157
0.005 to 0.010 % (28 day)

SPECIFIC GRAVITY
1.6

POROSITY
16 %

MIXING RATIO
The mixing ratio is approximately 5 parts powder to 1 part water by volume.

FINISHING TIME
Approximately 1 hour after mixing. Finishing time will depend on temperature of substrate, humidity and type of finish desired.

PACKAGING
One plastic pail contains 20 kg (44 lb).

SHELF LIFE
1 year in original, unopened pail.

SURFACE PREPARATION
Remove all impurities, dirt, grease, and other bond inhibiting materials from the surface. Preparation work should be done using manual or pneumatic cutting techniques. Be sure patch area is not less 10 mm (½ inch) in depth. Dampen surface to be repaired with clean water.

MIXING
The mixing ratio is approximately 5 parts powder to 1 part water. Use a clean container. Pour water into mixing container. The mixing may be done by hand or using a slow speed drill (300 rpm-450 rpm) with a mixing paddle. The mortar should be the consistency of damp sand. Do not add too much water. Do not over mix. Working time is approximately 1 hour.

APPLICATION & FINISHING
Mortar must be scrubbed into substrate, filling all pores and voids. Use a steel trowel. Force material against edge of repair, working toward the centre. When the mortar is the consistency of dry sand, screed to desired finish.

CURING
Spray/mist the surface with clean water for at least 3 days after installation, several times a day.

CLEAN UP
Remove the mortar from tools and mixing equipment with water. Cured material can only be removed mechanically.

CAUTION
Avoid eyes contact and prolonged contact with skin. May cause irritation to sensitive skin. In case of skin or eye contact, wash thoroughly with water. Avoid breathing the dust. In case of contact with the eyes, consult a doctor. KEEP OUT OF REACH OF CHILDREN.

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V1014
RECONSTEC 250 - SANDSTONE
RECONSTEC 300 - LIMESTONE

Limestone restoration mortar.

DESCRIPTION
Reconstec 300 is a mortar specially designed for the restoration of limestone. Non-shrink with a very good bond to limestone. Easily applied to clean, sound substrates. May be feather edged. Contains no synthetic polymers.

ADVANTAGES
• The same coefficient of thermal expansion as limestone.
• Very good adhesion to substrates.
• Not a vapor barrier, completely breathable.
• Good freeze-thaw resistance.
• Easy to use.
• No curing.
• Pigmented versions available.

TECHNICAL DATA

FINISHING TIME
Approximately 1 hour after mixing. Finishing time will depend on temperature, relative humidity.

PACKAGING
One plastic pail contains 20 kg (44 lb).

SHELF LIFE
1 year in original, unopened pail.

SURFACE PREPARATION
Remove all impurities, dirt, grease, and other bond inhibiting materials from the surface. Preparation work should be done using manual or pneumatic cutting techniques. Dampen surface to be repaired with clean water.

MIXING
The mixing ratio is approximately 5 parts powder to 1 part water. Use a clean container. Pour water into mixing container. The mixing may be done by hand or using a slow speed drill (300 rpm-450 rpm) with a mixing paddle. The mortar should be the consistency of damp sand. Do not add too much water. Do not over mix. Working time is approximately 15 minutes.

APPLICATION & FINISHING
Mortar must be scrubbed into substrate, filling all pores and voids. Use a steel trowel. Force material against edge of repair, working toward the center. When the mortar is the consistency of dry sand, screed to desired finish.

CURING
Curing is not necessary.

CLEAN UP
Remove the mortar from tools and mixing equipment with water. Cured material can only be removed mechanically.

CAUTION
Avoid eyes contact and prolonged contact with skin. May cause irritation to sensitive skin. In case of skin or eye contact, wash thoroughly with water. Avoid breathing the dust. In case of contact with the eyes, consult a doctor. KEEP OUT OF REACH OF CHILDREN.

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V1014

### COMPRESSION STRENGTH

<table>
<thead>
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<th>ASTM C 109</th>
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<tbody>
<tr>
<td>1 day</td>
<td>15 MPa (2180 psi)</td>
</tr>
<tr>
<td>7 day</td>
<td>30 MPa (4360 psi)</td>
</tr>
<tr>
<td>28 day</td>
<td>35 MPa (5100 psi)</td>
</tr>
</tbody>
</table>

### FLEXURAL STRENGTH

<table>
<thead>
<tr>
<th>ASTM C 348</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10.9 MPa (1581 psi)</td>
</tr>
</tbody>
</table>

### MODULUS OF ELASTICITY

<table>
<thead>
<tr>
<th>ASTM C 469</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13.8 to 16.5 GPa (200000 to 2400000 psi)</td>
</tr>
</tbody>
</table>

### BOND STRENGTH

<table>
<thead>
<tr>
<th>ASTM C 882 (MODIFIED)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11.5 MPa (1670 psi)</td>
</tr>
</tbody>
</table>

### LINEAR COEFF. OF THERMAL EXPANSION

<table>
<thead>
<tr>
<th>ASTM C 157</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>3.6 to 4.6 x 10^-6/°C</td>
</tr>
</tbody>
</table>

### LENGTH CHANGE

<table>
<thead>
<tr>
<th>ASTM C 157</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0.005 to 0.010 % (28 day)</td>
<td></td>
</tr>
</tbody>
</table>

### SPECIFIC GRAVITY

| 1.8 |

### POROSITY

| 10 % |

### MIXING RATIO

The mixing ratio is approximately 5 parts powder to 1 part water by volume.
RECONSTE 300 - LIMESTONE
RECONSTEC 350 - LIMESTONE

Limestone restoration mortar.

DESCRIPTION
Reconstec 350 is a mortar specially designed for the restoration of limestone. Non-shrink with a very good bond to limestone. Easily applied to clean, sound substrates. Contains no synthetic polymers.

ADVANTAGES
- The same coefficient of thermal expansion as limestone.
- Very good adhesion to substrates.
- Not a vapor barrier, completely breathable.
- Good freeze-thaw resistance.
- Easy to use.
- Pigmented versions available.

TECHNICAL DATA
Application time:
Approximately 1 hour after mixing. Application time is dependent on temperature. Higher temperature will require a faster application than with cooler temperatures.

COMPRESSIVE STRENGTH
ASTM C 109
- 3 day: 15 MPa (2180 psi)
- 7 day: 22 MPa (3200 psi)
- 28 day: 30 MPa (4360 psi)

FLEXURAL STRENGTH
ASTM C 348
- 10.9 MPa (1581 psi)

MODULUS OF ELASTICITY
ASTM C 469
- 13.1 to 14.5 GPa (1900000 to 2100000 psi)

BOND STRENGTH
ASTM C 882 (MODIFIED)
- 10.4 MPa (1508 psi)

LINEAR COEFF. OF THERMAL EXPANSION
3.6 to 4.6 x 10^-6/°C

LENGTH CHANGE
ASTM C 157
- 0.015 to 0.020 % (28 day)

SPECIFIC GRAVITY
1.8

POROSITY
10 %

MIXING RATIO
The mixing ratio is approximately 5 parts powder to 1 part water by volume.

FINISHING TIME
Approximately 1 hour after mixing. Finishing time will depend on temperature of substrate, humidity and type of finish desired.

PACKAGING
One plastic pail contains 20 kg (44 lb).

SHELF LIFE
1 year in original, unopened pail.

SURFACE PREPARATION
Remove all impurities, dirt, grease, and other bond inhibiting materials from the surface. Preparation work should be done using manual or pneumatic cutting techniques. Be sure patch area is not less 10 mm (½ inch) depth. Dampen surface to be repaired with clean water.

MIXING
The mixing ratio is approximately 5 parts powder to 1 part water. Use a clean container. Pour water into mixing container. The mixing may be done by hand or using a slow speed drill (300 rpm-450 rpm) with a mixing paddle. The mortar should be the consistency of damp sand. Do not add too much water. Do not over mix. Working time is approximately 1 hour.

APPLICATION & FINISHING
Mortar must be scrubbed into substrate, filling all pores and voids. Use a steel trowel. Force material against edge of repair, working toward the center. When the mortar is the consistency of dry sand, screed to desired finish.

CURING
Spray surface with a mist of clean water for at least 3 days after installation, several times a day.

CLEAN UP
Remove the mortar from tools and mixing equipment with water. Cured material can only be removed mechanically.

CAUTION
Avoid eyes contact and prolonged contact with skin. May cause irritation to sensitive skin. In case of skin or eye contact, wash thoroughly with water. Avoid breathing the dust. In case of contact with the eyes, consult a doctor. KEEP OUT OF REACH OF CHILDREN.

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V1014
RECONSTEC 400 - TERRA COTTA

Terra Cotta restoration mortar.

DESCRIPTION
Reconstec 400 is a mortar specially designed for the restoration of Terra Cotta. Non-shrink with a very good bond to Terra Cotta. Easily applied to clean, sound substrates. May be feather edged. Contains no synthetic polymers.

ADVANTAGES
- The same coefficient of thermal expansion as Terra Cotta.
- Very good adhesion to substrates.
- Not a vapor barrier, completely breathable.
- Good freeze-thaw resistance.
- Easy to use.
- No curing required.
- Pigmented versions available.

TECHNICAL DATA
Application time:
Approximately 15 minutes after mixing. Application time is dependent on temperature. Higher temperature will require a faster application than with cooler temperatures.

COMPRESSIVE STRENGTH

<table>
<thead>
<tr>
<th>ASTM C 109</th>
<th>1 day</th>
<th>20 MPa (2900 psi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 day</td>
<td>30 MPa (4360 psi)</td>
<td></td>
</tr>
<tr>
<td>28 day</td>
<td>40 MPa (5800 psi)</td>
<td></td>
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</tbody>
</table>

MIXING RATIO
The mixing ratio is approximately 5 parts powder to 1 part water by volume.

FINISHING TIME
Approximately 1 hour after mixing. Finishing time will depend on temperature of substrate, humidity and type of finish desired.

PACKAGING
One plastic pail contains 20 kg (44 lb).

SHELF LIFE
1 year in original, unopened pail.

SURFACE PREPARATION
Remove all impurities, dirt, grease, and other bond inhibiting materials from the surface. Preparation work should be done using manual or power tools cutting techniques. Dampen surface to be repaired with clean water.

MIXING
The mixing ratio is approximately 5 parts powder to 1 part water. Use a clean container. Pour water into a mixing container. The mixing may be done by hand or using a slow speed drill (300 rpm-450 rpm) with a mixing paddle. The mortar should be the consistency of damp sand. Do not add too much water. Do not over mix. Working time is approximately 15 minutes.

APPLICATION & FINISHING
Mortar must be scrubbed into substrate, filling all pores and voids. Use a steel trowel. Force material against edge of repair, working toward the center. When the mortar is the consistency of dry sand, screed to desired finish.

CURING
Curing is not necessary.

CLEAN UP
Remove the mortar from tools and mixing equipment with water. Cured material can only be removed mechanically.

CAUTION
Avoid eyes contact and prolonged contact with skin. May cause irritation to sensitive skin. In case of skin or eye contact, wash thoroughly with water. Avoid breathing the dust. In case of contact with the eyes, consult a doctor.

KEEP OUT OF REACH OF CHILDREN.

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V1014
RECONSTEC 500 - MARBLE AND TRAVERTINE

Marble and Travertine restoration mortar.

DESCRIPTION
Reconstec 500 is a mortar specially designed for the restoration of marble and travertine. Non-shrink with a very good bond to marble and travertine. Easily applied to clean, sound substrates. May be feather edged. Contains no synthetic polymers.

ADVANTAGES
• The same coefficient of thermal expansion as marble and travertine.
• Very good adhesion to substrates.
• Not a vapor barrier, completely breathable.
• Good freeze-thaw resistance.
• Easy to use.
• No curing required.
• Pigmented versions available.

TECHNICAL DATA
Application time:
Approximately 15 minutes after mixing. Application time is dependent on temperature. Higher temperature will require a faster application than with cooler temperatures.

COMPRESSIVE STRENGTH
ASTM C 109

<table>
<thead>
<tr>
<th></th>
<th>1 day</th>
<th>7 day</th>
<th>28 day</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15 MPa (2180 psi)</td>
<td>30 MPa (4360 psi)</td>
<td>35 MPa (5100 psi)</td>
</tr>
</tbody>
</table>

MIXING RATIO
The mixing ratio is approximately 5 parts powder to 1 part water by volume.

FINISHING TIME
Approximately 1 hour after mixing. Finishing time will depend on temperature of substrate, humidity and type of finish desired.

SPECIFIC GRAVITY
1.8

PACKAGING
One plastic pail contains 20 kg (44 lb).

SHELF LIFE
1 year in original, unopened pail.

SURFACE PREPARATION
Remove all impurities, dirt, grease, and other bond inhibiting materials from the surface. Preparation work should be done manually, or carefully with power tools. Dampen surface to be repaired with clean water.

MIXING
The mixing ratio is approximately 5 parts powder to 1 part water. Use a clean container. Pour water into mixing container. The mixing may be done by hand or using a slow speed drill (300 rpm-450 rpm) with a mixing paddle. The mortar should be the consistency of damp sand. Do not add too much water. Do not over mix. Working time is approximately 15 minutes.

APPLICATION & FINISHING
Mortar must be scrubbed into substrate, filling all pores and voids. Use a steel trowel. Force material against edge of repair, working toward the center. When the mortar is the consistency of dry sand, screed to desired finish.

CURING
Curing is not necessary.

CLEAN UP
Remove the mortar from tools and mixing equipment with water. Cured material can only be removed mechanically.

CAUTION
Avoid eyes contact and prolonged contact with skin. May cause irritation to sensitive skin. In case of skin or eye contact, wash thoroughly with water. Avoid breathing the dust. In case of contact with the eyes, consult a doctor. KEEP OUT OF REACH OF CHILDREN.

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V1014
HERITAGE BUILDING SOLUTIONS

RECONSTEC 500 - MARBLE AND TRAVERTINE

RECONSTEC 500 - MARBLE AND TRAVERTINE
RECONSTEC 300 AC - ARCHITECTURAL CONCRETE REPAIR MORTAR

Architectural Concrete repair mortar

DESCRIPTION
Reconstec 300 AC is a mortar specifically designed for the restoration of architectural concrete. Non-shrink with a very good bond to the substrates. Easily applied to clean, sound substrates. Contains no synthetic polymers. For exposed aggregate applications over ¼ inch, it is necessary to use Reconstec 300 AC Anchoring Cement.

ADVANTAGES
- Same thermal expansion coefficient as concrete.
- Excellent bond to substrate.
- Not a vapor barrier.
- Good resistance to freeze/thaw cycles.
- Easy to use.
- Available in a wide variety of colours and many types of stone and sand.
- Pigmented version available.

TECHNICAL DATA
Application time:
Approximately 15 minutes after mixing. Several factors, including ambient temperature, may affect application time.

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>COMPRESSION STRENGTH</strong></td>
<td></td>
</tr>
<tr>
<td>ASTM C 109</td>
<td></td>
</tr>
<tr>
<td>1 day</td>
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</tr>
<tr>
<td>28 day</td>
<td>40 MPa (5800 psi)</td>
</tr>
<tr>
<td><strong>FLEXURAL STRENGTH</strong></td>
<td></td>
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<tr>
<td>ASTM C 348</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10.9 MPa (1581 psi)</td>
</tr>
<tr>
<td><strong>MODULUS OF ELASTICITY</strong></td>
<td></td>
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<tr>
<td>ASTM C 469</td>
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<tr>
<td></td>
<td>13.8 to 16.5 GPa</td>
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<tr>
<td>(2000000 to 2400000 psi)</td>
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<tr>
<td><strong>BOND STRENGTH</strong></td>
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<tr>
<td>ASTM C 882 (MODIFIED)</td>
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</tr>
<tr>
<td><strong>LINEAR COEFF. OF THERMAL EXPANSION</strong></td>
<td></td>
</tr>
<tr>
<td>ASTM C 157</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.6 to 4.6 x 10^-5/°C</td>
</tr>
<tr>
<td><strong>LENGTH CHANGE</strong></td>
<td></td>
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<tr>
<td>ASTM C 157</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.005 to 0.010 % (28 day)</td>
</tr>
<tr>
<td><strong>MIXING RATIO</strong></td>
<td>The mixing ratio is approximately 5 parts powder to 1 part water by volume.</td>
</tr>
<tr>
<td><strong>FINISHING TIME</strong></td>
<td>Approximately 15 minutes after mixing. Several factors, including the ambient temperature, relative humidity and the type of finish desired, may influence the finishing time.</td>
</tr>
</tbody>
</table>

YIELD
Approximately 12 litres (0.4 ft.³)

SPECIFIC GRAVITY
2.2

PACKAGING
One plastic pail contains 20 kg (44 lb).

SHELF LIFE
1 year in original, unopened pail.

SURFACE PREPARATION
Remove all loose material, dirt, grease and any other element that could prevent bonding between the support and the restoration mortar, on a minimum thickness of 3 times the diameter of the largest stone in the mixture. Preparation and cutting of the existing concrete surface should be done manually or with power tools. Clean the area to be repaired with clean water and saturate the surface, taking care to remove excess water. If aggregate in the mixture is ¼ inch or larger, use Reconstec 300 AC Anchoring Cement. Refer to the product Technical Data Sheet. It is important to use an anchoring cement that has the same color as the Reconstec 300 AC used on the project.

MIXING
Begin by pouring 75% of the required water into a clean container. Mixing can be done by hand or using a slow-speed mixer (300 rpm-450 rpm) with a Jiffle-type end bit. Mix to a uniform consistency for a minimum of 3 minutes. Add more water to adjust the mixture and obtain desired consistency. Do not add too much water. Do not over mix. Working time is approximately 15 minutes.

APPLICATION & FINISHING
Trowel application:
The mortar must be pressed against the substrate to fill all the pores and the voids. Use a steel trowel. Working from the center, press the mortar outwards to the area to be repaired. Allow the necessary time for the mortar to achieve its initial setting time. Then, using a brush or a sprayer, apply Reconstec 300 AC Vapor Retarder. Depending on the desired effect, let vapor retarder soak for a period of time. Then, using a brush and water where needed, free aggregates from material surface using a brushing motion. Apply desired finish.

Use of a mold:
When a mold is required, apply the Retarder inside the mold prior to casting the mixture. When the mortar has hardened enough to permit stripping, the cement paste on the surface can be removed either with a brush, a high pressure water jet or a combination of both. The desired appearance of the finished product can be achieved by exposing the aggregate, by removal of the concrete paste.

CURING
Curing is not mandatory.
RECONSTEC 300 AC - ARCHITECTURAL CONCRETE REPAIR MORTAR

CLEAN UP
Use water to remove the mortar from tools and mixing equipment. The cured product can only be removed mechanically.

CAUTION
Avoid eyes contact and prolonged contact with skin. May cause irritation to sensitive skin. In case of skin or eye contact, wash thoroughly with water. Avoid breathing the dust. In case of contact with the eyes, consult a doctor. KEEP OUT OF REACH OF CHILDREN.

GUARANTEE
All information provided is correct to the best of our knowledge and the product is satisfactory for the purposes for which it is intended. However, no guarantee, express or implied, is given because the mixing and application conditions are beyond our control. Our responsibility is limited specifically and only to the replacement of defective products or, if we so choose, to the refund of the cost of this product.

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RECONSTEC 350 AC - RESTORATION MORTAR FOR ARCHITECTURAL CONCRETE

Architectural Concrete repair mortar

DESCRIPTION
Reconstec 350 AC is a mortar specifically designed for the restoration of architectural concrete. Non-shrink with a very good bond to the substrates. Easily applied to clean, sound substrates. Contains no synthetic polymers. For exposed aggregate applications over ¼ inch, it is necessary to use Reconstec 350 AC Anchoring Cement.

ADVANTAGES
• Same thermal expansion coefficient as concrete.
• Excellent bond to substrate.
• Not a vapor barrier.
• Good resistance to freeze/thaw cycles.
• Easy to use.
• Available in a wide variety of colours and many types of stone and sand.
• Pigmented version available.

TECHNICAL DATA
Application time:
Approximately 1 hour after mixing. Several factors, including ambient temperature, may affect application time.

COMPRESSION STRENGTH
ASTM C 109
1 day 15 MPa (2180 psi)
7 days 30 MPa (4360 psi)
28 days 40 MPa (5800 psi)

FLEXURAL STRENGTH
ASTM C 348
10.9 MPa (1581 psi)

ELASTICITY MODULUS
ASTM C 469
13.8 to 16.5 GPa
(2000000 to 2400000 psi)

BOND STRENGTH
ASTM C 882 (MODIFIED)
11.5 MPa (1670 psi)

LINEAR COEFF. OF THERMAL EXPANSION
3.6 to 4.6 x 10^-5/°C

VOLUME CHANGE
ASTM C 157
0.005 to 0.010% (28 days)

MIXING RATIO
Approximately 5 parts powder to 1 part water by volume.

FINISHING TIME
Approximately 1 hour after mixing. Several factors, including the ambient temperature, relative humidity and the type of finish desired, may influence the finishing time.

YIELD
Approximately 12 litres (0.4 ft.³)

SPECIFIC GRAVITY
2.2

PACKAGING
One plastic pail contains 20 kg (44 lb.)

SHELF LIFE
1 year in original, unopened pail.

SURFACE PREPARATION
Remove all loose material, dirt, grease and any other element that could prevent bonding between the support and the restoration mortar, on a minimum thickness of 3 times the diameter of the largest stone in the mixture. Preparation and cutting of the existing concrete surface should be done manually or with power tools. Clean the area to be repaired with clean water and saturate the surface, taking care to remove excess water.

If aggregate in the mixture is ¼ inch or larger, use Reconstec 350 AC Anchoring Cement. Refer to the product Technical Data Sheet. It is important to use an anchoring cement that has the same color as the Reconstec 350 AC used on the project.

MIXING
Begin by pouring 75% of the required water into a clean container. Mixing can be done by hand or using a slow-speed mixer (300 rpm-450 rpm) with a Jiffler-type end bit. Mix to a uniform consistency for a minimum of 3 minutes. Add more water to adjust the mixture and obtain desired consistency. Do not add too much water. Do not over mix. Working time is approximately 1 hour.

APPLICATION & FINISHING
Trowel application
The mortar must be pressed against the substrate to fill all the pores and the voids. Use a steel trowel. Working from the center, press the mortar outwards to the area to be repaired. Allow the necessary time for the mortar to achieve its initial setting time. Then, using a brush or a sprayer, apply Reconstec 350 AC Vapor Retarder. Depending on the desired effect, let vapor retarder soak for a period of 1 to 2 hours or 15 to 20 minutes. Then, using a brush and water where needed, free aggregates from material surface using a brushing motion. Apply desired finish.

Use of a mold
When a mold is required, apply the Retarder inside the mold prior to casting the mixture. When the mortar has hardened enough to permit stripping, the cement paste on the surface can be removed either with a brush, a high pressure water jet or a combination of both. The desired appearance of the finished product can be achieved by exposing the aggregate, by removal of the concrete paste.
RECONSTEC 350 AC

RECONSTEC 350 AC - RESTORATION MORTAR FOR ARCHITECTURAL CONCRETE

CURING
Moist curing should begin immediately after finishing. Use a mist spray or damp tarp for a period of two days. Protect the freshly applied mortar from direct sunlight, wind, rain and frost.

CLEAN UP
Use water to remove the mortar from tools and mixing equipment. The cured product can only be removed mechanically.

CAUTION
Avoid eyes contact and prolonged contact with skin. May cause irritation to sensitive skin. In case of skin or eye contact, wash thoroughly with water. Avoid breathing the dust. In case of contact with the eyes, consult a doctor.

KEEP OUT OF REACH OF CHILDREN.

GUARANTEE
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ANCHORING CEMENT 300 AC

DESCRIPTION
Anchoring Cement 300 AC is a mortar specifically designed to improve the bond to Reconstec 300 AC when the material contains aggregate that is ¼ inch or greater. It consists of a mixture of cement, additives and sand. Easily applied to a clean, sound substrate. Contains no synthetic polymer.

ADVANTAGES
• Same thermal expansion coefficient as Reconstec 300 AC.
• Excellent bonding to substrate.
• Not a vapour barrier.
• Good resistance to freeze/thaw cycles.
• Easy to use.
• Pigmented version available.

TECHNICAL DATA
Application time:
Approximately 15 minutes after mixing. Several factors, including ambient temperature, may affect application time.

COMPRESSION STRENGTH
ASTM C 109
1 day 15 MPa (2180 psi)
7 days 30 MPa (4360 psi)
28 days 40 MPa (5800 psi)

FLEXURAL STRENGTH
ASTM C 348
10.9 MPa (1581 psi)

ELASTICITY MODULUS
ASTM C 469
13.8 to 16.5 GPa
(2000000 to 2400000 psi)

BOND STRENGTH
ASTM C 882 (MODIFIED)
11.5 MPa (1670 psi)

LINEAR COEFF. OF THERMAL EXPANSION
3.6 to 4.6 x 10⁻⁶/°C

VOLUME CHANGE
ASTM C 157
0.005 to 0.010% (28 days)

MIXING RATIO
Approximately 7 parts powder to 1 part water by volume.

PACKAGING
Plastic pail.

SHELF LIFE
1 year in original, unopened pail.

SURFACE PREPARATION
For surface preparation, please refer to the Reconstec 300 AC Technical Data Sheet. Before applying Anchoring Cement 300 AC, clean the section to be repaired with clean water and saturate the surface, taking care to remove excess water.

MIXING
Begin by pouring 75% of the required water into a clean container. Mixing can be done by hand or using a slow-speed mixer (300-450 rpm) with a Jiffler-type end bit. Mix to a uniform consistency. Add more water to adjust the mixture and obtain the desired consistency. Do not add too much water. Do not over mix. Working time is approximately 1 hour.

APPLICATION & FINISHING
The mortar must be pressed against the substrate to fill all the pores and the voids. Use a steel trowel. Force the mortar against the edge of the section to be repaired, working towards the center. The application thickness depends on the diameter of the largest stone in the Reconstec 300 AC mixture specific to your project. A minimum application thickness of ¼ inch is required.

CURING
Moisture curing should begin immediately after finishing. Use a mist spray or damp tarp for a period of two days. Protect the freshly applied mortar from direct sunlight, wind, rain and frost.

CLEAN UP
Use water to remove the mortar from tools and mixing equipment. The cured product can only be removed mechanically.

CAUTION
Avoid contact with the eyes and prolonged contact with the skin. May irritate sensitive skin. In case the skin or eyes are splashed, rinse carefully with water. Avoid breathing the dust. In case of contact with the eyes, consult a doctor. KEEP OUT OF REACH OF CHILDREN.

GUARANTEE
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ANCHORING CEMENT 300 AC
ANCHORING CEMENT 350 AC

DESCRIPTION
Anchoring Cement 350 AC is a mortar specifically designed to improve the bond to Reconstec 350 AC when the material contains aggregate that is ¼ inch or greater. It consists of a mixture of cement, additives and sand. Easily applied to a clean, sound substrate. Contains no synthetic polymer.

ADVANTAGES
• Same thermal expansion coefficient as Reconstec 350 AC.
• Excellent bonding to substrate.
• Not a vapour barrier.
• Good resistance to freeze/thaw cycles.
• Easy to use.
• Pigmented version available.

TECHNICAL DATA
Application time:
Approximately 1 hour after mixing. Several factors, including ambient temperature, may affect application time.

COMPRESSIVE STRENGTH
ASTM C 109
1 day 15 MPa (2180 psi)
7 days 30 MPa (4360 psi)
28 days 40 MPa (5800 psi)

FLEXURAL STRENGTH
ASTM C 348
10.9 MPa (1581 psi)

ELASTICITY MODULUS
ASTM C 469
13.8 to 16.5 GPa
(2000000 to 2400000 psi)

BOND STRENGTH
ASTM C 882 (MODIFIED)
11.5 MPa (1670 psi)

LINEAR COEFF. OF THERMAL EXPANSION
3.6 to 4.6 x 10⁻⁶/°C

VOLUME CHANGE
ASTM C 157
0.005 to 0.010% (28 days)

MIXING RATIO
Approximately 7 parts powder to 1 part water by volume.

PACKAGING
Plastic pail.

SHELF LIFE
1 year in original, unopened pail.

SURFACE PREPARATION
For surface preparation, please refer to the Reconstec 350 AC Technical Data Sheet. Before applying Anchoring Cement 350 AC, clean the section to be repaired with clean water and saturate the surface, taking care to remove excess water.

MIXING
Begin by pouring 75% of the required water into a clean container. Mixing can be done by hand or using a slow-speed mixer (300-450 rpm) with a Jiffler-type end bit. Mix to a uniform consistency. Add more water to adjust the mixture and obtain the desired consistency. Do not add too much water. Do not over mix. Working time is approximately 1 hour.

APPLICATION & FINISHING
The mortar must be pressed against the substrate to fill all the pores and the voids. Use a steel trowel. Force the mortar against the edge of the section to be repaired, working towards the center. The application thickness depends on the diameter of the largest stone in the Reconstec 350 AC mixture specific to your project. A minimum application thickness of ¼ inch is required.

CURING
Moisture curing should begin immediately after finishing. Use a mist spray or damp tarp for a period of two days. Protect the freshly applied mortar from direct sunlight, wind, rain and frost.

CLEAN UP
Use water to remove the mortar from tools and mixing equipment. The cured product can only be removed mechanically.

CAUTION
Avoid contact with the eyes and prolonged contact with the skin. May irritate sensitive skin. In case the skin or eyes are splashed, rinse carefully with water. Avoid breathing the dust. In case of contact with the eyes, consult a doctor. KEEP OUT OF REACH OF CHILDREN.

GUARANTEE
All information provided is correct to the best of our knowledge and the product is satisfactory for the purposes for which it is intended. However, no guarantee, express or implied, is given because the mixing and application conditions are beyond our control. Our responsibility is limited specifically and only to the replacement of defective products or, if we so choose, to the refund of the cost of this product.

Note: The contents of this data sheet are updated regularly. To ensure that you have the most recent version, please visit our website at the following address: www.king-masonry.com

This product is designed to meet the performance specifications outlined in this product data sheet. If the product is used in conditions for which it was not intended, or applied in a manner contrary to the written recommendations contained in the product data sheet, the product may not reach such performance specifications. The foregoing is in lieu of any other warranties, representations or conditions, expressed or implied, including, but not limited to, implied warranties or conditions of merchantable quality or fitness for particular purposes, and those arising by statute or otherwise in law or from a course of dealing or usage of trade.

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ANCHORING CEMENT 350 AC
OTHER PRODUCTS
RECONSTEC MF

Reconstec MF is a blended mortar, specially developed for use over masonry joints that require maximum flexibility. This mortar is made of polyurethane, high-grade sand, and carefully selected additives. It is available in grey, but can also be blended with a variety of coloring agents. The surface finish of Reconstec MF is polished.

FEATURES AND BENEFITS
- High bond strength.
- Maximum flexibility.
- Superior workability.
- Excellent resistance to de-icing salts.

USES
- Developed for use in areas where small movements occur and where regular mortar is subject to cracking.
- Ideal for church squares.
- Can be used in control joints.
- Achieves high bond strength with indoor or outdoor applications.

PROCEDURES
In a sufficiently large container, mix part A and part B for 3 minutes. For optimal bond strength, it is recommended to use the entire contents of part A and B. Do not mix a greater quantity than that which can be applied within 15 minutes. Tools should be thoroughly cleaned immediately after use.

With the use of a trowel, apply the mortar while applying sufficient pressure to ensure a good bond. It is recommended to start the application from the centre of the joint working towards the sides. To counteract the polished finish of the mortar, a dusting of sand can be added to the surface of the mortar joint to control the stickiness of the surface.

No curing is necessary.

OPTIMUM PERFORMANCE
- Do not use Reconstec MF as a mortar bed to lay bricks or conventional stones.
- Do not use this mortar at temperatures less than 4°C (40°F) or more than 38°C (95°F), or in situations where the temperature may exceed the limitations for 72 hours following the application.
- Do not add any additives in the attempt to modify plastic or hardened mortar properties.

YIELD
A trowel of Reconstec MF should yield enough mortar for approximately 1.5 linear meters (5 ft) of a 10 mm (3/8 inch) by 10 mm (3/8 inch) joint.

STORAGE AND SHELF LIFE
Unopened contents have a minimum shelf life of 1 month if stored in a dry covered area protected from the elements.

SAFETY PROCEDURES
Reconstec MF is made from polyurethane. Review MSDS sheets for recommended personal protective equipment before handling. Material Safety Data Sheets are available upon request.

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