WHY CHOOSE KING GROUT?

Confidence: KING grouts simplify construction projects for specifiers and contractors, because all mix components are pre-blended under controlled factory conditions and require only the addition of water. KING's high quality grout products remove the on-site guesswork, so contractors feel confident that they will meet project specifications the first time and every time.

Improved Project Scheduling: Some KING grouts provide **high early-age strength gain**, which can accelerate the construction schedule and reduce the waiting time between grout placement and return-to-service. Faster strength gain allows contractors to accelerate the drilling and grouting process, maximizing the efficiency of grouting crews.

Performance: KING grouts are available in various formulations and can be designed to perform in many different and challenging environments such as: in areas of permafrost, in fractured rock, with active water, or in other challenging conditions.

Pumpability: Grouting crews prefer to use KING grout products, because of their consistent fluid properties. When mixed as recommended to achieve fluid consistency, KING's neat and sanded grouts provide pumpability from batch to batch, eliminating the inconvenience of plugged hoses.

KING grouts are designed for many varying applications including but not limited to: cable-bolting, windmill foundation, soil-nailing, electricity pylon construction, dam rehabilitation, retaining wall construction, soil stabilization, underwater anchoring, permafrost pile construction, post-tensioning, machine baseplate or micro-pile injection, bridge foundation or shear wall anchoring, pile-jacket filling, sheet-pile sealing, sub-zero or tremie grouting, and grouting into highly fractured rock.

CALL US: 1-800-461-0566

FOR A SUCCESSFUL GROUTING OPERATION

Over the past 25 years, KING has provided a full line of neat and sanded grouts, the equipment required to mix, place and pump those grouts, and the KING advantage of the on-site technical support required to execute a successful grouting operation, each and every time.

GROUTING EQUIPMENT

KING also supplies grouting equipment for civil and mining projects across North America. More specifically, KING is a proud distributor of ChemGrout equipment, a brand that offers a large and varying line of grout mixers and pumps to suit specialized grouting applications. The CG-550 Series is featured below, but KING also offers the CG-500 High Pressure Series, the CG-542 Rock Bolter, as well as Chemgrout's Colloidal Mixing Equipment and Agitators, along with accessories such as grout-flow meters, manual grout pumps and much more.

constructionproducts@kpmindustries.com

Mixing Strength With Satisfaction

KING

Guide for Selection of Grouts

www.kingconstructionproducts.com

GROUTS

		MS Cable	CT Cable	PT	Nordic	In-Pakt Construction	In-Pakt Precision	In-Pakt Precision CT
APPLICATION TEMPERATURE		5 °C (40 °F) to 35 °C (95 °F)	3 °C (37 °F) to 18 °C (64 °F)	5 °C (40 °F) to 35 °C (95 °F)	-10 °C (14 °F) to 5°C (40 °F)	5 °C (40 °F) to 30 °C (86 °F)	5 °C (40 °F) to 30 °C (86 °F)	-5 °C (23 °F) to 30 °C (86 °F)
MINIMUM THICKNESS		6 mm (0.25")	6 mm (0.25")	6 mm (0.25")	6 mm (0.25")	6 mm (0.25")	6 mm (0.25")	6 mm (0.25")
KEY FEATURE(S)		High Early Compressive Strength Gain, Non-Shrink & Resistant to Water Wash-Out	Cold Temperature Applications, High Early Compressive Strength Gain, Non-Shrink, Neat & Resistant to Water Wash-Out	High Early Compressive Strength Gain, Non-Shrink & Resistant to Corrosion	Cold Temperature Applications in Sub-Zero Conditions, Pumpable & Resistant to Water Wash-Out	Non-Shrink	High Performance, Non-Shrink & Resistant to Water Wash-Out	Cold Temperature Applications, Non-Shrink & High Performance
APPLICATIONS		Grouted anchor requirements; cable bolting, earth tie-backs, anchor and re-bar grouting, soil or rock tendons; infill of pipe piles; injection-bored micropiles		Grouting pre-tensioned or post-tensioned cables or rods; grouted anchor requirements; infill of pipe piles	Grouting bored/micro piles in permafrost; grouting columns and anchors in permafrost;	Grouting machinery base plates and column sole plates; grouting anchor bolts, dowels and handrails; repair of pre-cast units; infill of pipes and sleeves	Grouting machinery base plates and column sole plates; grouting anchor bolts, dowels and hand-rails; repair of pre-cast units; infill of pipes and sleeves in marine environments	
EXPOSURE		Water Wash-Out, Freeze-Thaw & Sulphate Attack			Permafrost & Sub-Zero Temperatures	Freeze-Thaw	Freeze-Thaw & De-Icing Salts	
FLOW CONE		20-30 seconds	20-30 seconds	10-15 seconds	15-25 seconds			
MORTAR FLOW		N/A	N/A	N/A	N/A	Plastic: 110%, Fluid: >150%		
PUMPABLE?		Yes	Yes	Yes	Yes	Dry Pack & Plastic: No, Fluid: Yes		
INITIAL SET		6.0 hours	5.0 hours	> 3.0 hours	1.5-2.0 hours	Plastic: 3.0 hours Fluid: 4.0 hours	Plastic: 3.0 hours Fluid: 6.5 hours	Plastic: 3.0 hours Fluid: 5.5 hours
FINAL SET		8.0 hours	6.0 hour	> 12.0 hours	2.5-3.0 hours	Plastic: 4.5 hours Fluid: 6.5 hours	Plastic: 3.5 hours Fluid: 8.5 hours	Plastic: 3.5 hours Fluid: 7.0 hours
COMPRESSIVE STRENGTH*	1 DAY	5 °C (40 °F): 4.5 MPa (650 psi) 21 °C (70 °F): 28 MPa (4060 psi)	3 °C (37 °F): 30 MPa (4350 psi)**	28 MPa (4060 psi)	-10 °C (14 °F): 30 MPa (4350 psi)***	Dry Pack: 35 MPa (5075 psi) Plastic: 25 MPa (3625 psi) Fluid: 20 MPa (2900 psi)	Plastic: 25 MPa (3625 psi) Fluid: 20 MPa (2900 psi)	Plastic: 25 MPa (3625 psi) Fluid: 15 MPa (2175 psi)
	3 DAY	5 °C (40 °F): 30 MPa (4350 psi) 21 °C (70 °F): 40 MPa (5800 psi)	3 °C (37 °F): 32 MPa (4640 psi)**	40 MPa (5800 psi)		Dry Pack: 45 MPa (6500 psi) Plastic: 30 MPa (4350 psi) Fluid: 25 MPa (3625 psi)	Dry Pack: 50 MPa (7250 psi) Plastic: 30 MPa (4350 psi) Fluid: 25 MPa (3625 psi)	Dry Pack: 40 MPa (5800 psi) Plastic: 30 MPa (4350 psi) Fluid: 20 MPa (2900 psi)
	7 DAY	5 °C (40 °F): 40 MPa (5800 psi) 21 °C (70 °F): 45 MPa (6500 psi)	3 °C (37 °F): 35 MPa (5075 psi)**	45 MPa (6500 psi)	-10 °C (14 °F): 35 MPa (5075 psi)***	Dry Pack: 50 MPa (7250 psi) Plastic: 35 MPa (5075 psi) Fluid: 30 MPa (4350 psi)	Dry Pack: 55 MPa (8000 psi) Plastic: 45 MPa (6500 psi) Fluid: 40 MPa (5800 psi)	Dry Pack: 45 MPa (6500 psi) Plastic: 45 MPa (6500 psi) Fluid: 35 MPa (5075 psi)
	28 DAY	5 °C (40 °F): 55 MPa (8000 psi) 21 °C (70 °F): 60 MPa (8700 psi)	3 °C (37 °F): 42 MPa (6000 psi)**	60 MPa (8700 psi)	-10 °C (14 °F): 42 MPa (6000 psi)***	Dry Pack: 65 MPa (9425 psi) Plastic: 40 MPa (5800 psi) Fluid: 35 MPa (5075 psi)	Dry Pack: 70 MPa (10150 psi) Plastic: 55 MPa (8000 psi) Fluid: 50 MPa (7250 psi)	Dry Pack: 55 MPa (8000 psi) Plastic: 55 MPa (8000 psi) Fluid: 40 MPa (5800 psi)
WORKING TIME		30 minutes	30 minutes	30 minutes	20 minutes	Dry Pack: 30 minutes Plastic: 60 minutes Fluid: 60 minutes	Dry Pack: 30 minutes Plastic: 60 minutes Fluid: 60 minutes	Dry Pack: 15 minutes Plastic: 30 minutes Fluid: 60 minutes

*Data is representative of typical values achievable under laboratory conditions, except as amended in the notes herein. Temperatures referenced in "Compressive Strength" section are representative of curing temperature only. For more detailed information, refer to Technical Data Sheet for the respective product. Results in the field may vary.
**Values determined using 100 mm (4") diameter x 200 mm (8") high cylinders with a grout temperature of 21 °C (70 °F) and a curing temperature of 3 °C (37 °F). ***Values determined using 100 mm (4") diameter x 200 mm (8") high cylinders with a grout temperature of 23 °C (73 °F) and a curing temperature of -10 °C (14 °F).