

K A U F M A N

PRODUCT
INFORMATION

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K Pro HP Grout Met

Description

K Pro HP Grout Met is a ready-for-use, high performance grouting and chocking material, composed of special epoxy resins, high strength hardeners, catalysts and a special metallic aggregate blend. All the ingredients necessary for a high quality, very high early and final compressive strength, dimensionally-stable grout are all pre-measured and packaged in one unit. No longer do workers have to figure out volumetric or weight ratios for combining many liquid and dry materials that would tax mathematicians. Because all necessary ingredients are packaged in convenient pre-measured units, nothing is left to chance. Laboratory controlled proportions can be achieved in the field.

Exceptional toughness and strengths are the predominant traits of K Pro HP Grout Met. In fact, it is one of the most durable grouts on the market today. The use of special metallic aggregates provides for a much more significant wearing surface – an ability needed in many facilities.

K Pro HP Grout is the top of the line, because it is a 100% solids epoxy system without fillers. HP Grout Met is both non-shrinking and also non-expansive for better load bearing characteristics. Its rigid hold-tight ability allows it to resist loads, vibrations and other stresses set up by machines. Because there is little heat buildup, K Pro HP Grout Met can be placed up to 16" deep without shrinkage and cracking.

Uses

Use whenever a high performance, very strong, dimensionally stable, chemical resistant grout is desired. Use where loads, shocks, impacts and operational stresses are routine. K Pro HP Grout Met offers excellent chemical resistance and abrasion resistance. It may be used as a grout for precision alignment under dynamic load conditions, for vibration dampening filler for rotating equipment, support of chemical tanks, vessels and rotating equipment as well as anchoring bolts, reinforcing bars and dowels into concrete, rock and masonry. Use for compressors, crane rails, diesel generators, gas turbines, gear cases, engines and storage tanks. Ideal for floor overlays, joint repairs, new installations to protect surfaces, and all areas requiring greater abrasion resistance.

Comparison To Cementitious Grouts

Higher compression strength
Higher tensile strength
Higher shear
Higher shock resistance
Greater Wearing Resistance
Reduced shrinkage
Higher chemical resistance
Faster strength gain
No curing necessary
Place up to 18" in one continuous pour
No VOC and solvent free

Physical Properties

Compressive Yield Strength	32,000 psi @ 7 days
Compressive Strength	12,000 psi @ 1 day 15,000 psi @ 3 days 17,000 psi @ 7 days
HDT	127°F
Tensile Strength & Elongation	6300 psi @ 7 days 3-6%
Flexural Strength	14,000 psi @ 7 days
Shrinkage	0.002 max
Coefficient of Linear Expansion	14.6×10^{-6} in./in. °F
Adhesion to Concrete	Exceeds concrete
Working Life	45 min @ 70°F
Depth of Pour Limitation	18"
Cured Density	130 lbs./cu. ft.
Flash Point	220° F
Dielectric Strength	140 volts/mil.
Abrasion Resistance	.008 @ 30 minutes .014 @ 60 minutes

Packaging/ Yield

$\frac{3}{4}$ gal. of K Pro HP Grout Epoxy and 40# K Pro HP Grout Met Aggregate will yield .26 ft³.

3 gal. of K Pro HP Grout Epoxy with either 80 lbs. of K Pro HP Grout Met Aggregate will yield 1.04 ft³.

Specifications

ASTM C-881, Types I, II, IV & V, Grade 1, Class C
AASHTO M-235, Types I & II, Grade 1, Class C

Chemical Resistance – (7 day immersion)

Up to the following concentrations

100% Alcohols, Various
40% Citric Acid
10% Hydrochloric Acid
20% Nitric Acid
50% Phosphoric Acid
100% Sodium Chloride
50% Sodium Hydroxide
100% Sea Water
100% Tri Sodium Phosphate
100% Xylene
100% Gasoline
100% Chlorine Water

Directions

Surface Preparation

Metal surfaces to be in contact with K Pro HP Grout Met should be dry and free of grease, paint or rust. Sandblast to a bright metal surface. Concrete on which the grout will bear should have attained its full designed strength and shrinkage before grouting. All concrete surfaces that are to come into contact with K Pro HP Grout Met should be chipped approximately 1" in depth or until the large aggregate is exposed to remove laitance and provide a rough surface for good bonding and shear strength. If the concrete is oil soaked, chip until no oil or contaminants are visible. Cover all shims, leveling screws, wedges and blocks, which are to be removed after grouting, with wax prior to pouring.

Forming: Make all forms liquid tight to prevent seepage. Use a putty or caulking compound to seal all forms. If any parts of forms, or other areas, are not to be bonded to K Pro HP Grout Met, then treat with 3 coats of paste, auto wax or polyethylene to prevent adhesion. Long or deep pours should contain number 4 or 5 rebars on approximately 12-18" centers parallel to the equipment to reduce stress cracking. The rebars should be placed approximately 2" below the grout surface and if the rebar is tiered, the bottom rebar should be located 2" above the foundation surface. Very deep pours can be done in several lifts of approximately 12-16" each.

For bolt grouting, hole diameters, 1/4" to 1/2" greater than the bolt diameter are normally employed. Under 3000 psi concrete, 15 times bolt diameter is recommended for depth. Hole spacing is also important to avoid stress interaction caused by holes placed too closely or near the edge.

Mixing: Condition all ingredients to 70°F or more. Open cans and pour the contents of both containers into larger container. Stir both components together thoroughly. Pour all of this liquid onto the bags of K Pro HP Grout Met Aggregate in a mixing container or mortar mixer. Mix aggregate and liquid epoxy together until uniformly blended, approximately 3 minutes with paddle or low speed drill (400-600 rpm) until grout is uniform in color and consistency. Do not vary the

ratio of resin and hardener or add solvent or water to change the consistency.

Placement: Substrate must be at least 50°F and rising. Grout should be placed from only one side to avoid air entrapment. Rod or vibrate the material to achieve complete filling and consolidation. When placing under pads, maintain a head to insure intimate contact between grout and plate. A smooth finish may be achieved by steel troweling the grout. Clean all equipment with SurePoxy Thinner before material hardens.

Curing

The following chart is a guide for determining final cure times. The temperatures shown are of the baseplate and foundation, not ambient temperatures.

Temp. °F	Cure Time, Hours
90	12
80	24
70	36
60	48
50	72

Notes

Do not thin. Store above 60°F. Cold temperatures slow strength gain and high temperatures speed strength gain. K Pro HP Grout Met is not designed for applications requiring resistance to continuous temperatures over 130°F. Do not use radiant heating. This warms the grouts upper surface more than below. The grout surface therefore cures in a thermally expanded state and after dissipation of heat, produces stress that tends to make the grout "curl up", results in cracks in the foundation corners just below the grout line. For best results, fabricate temporary shelters around the equipment to be grouted and pre-warm the equipment and foundation. Try and prevent the grouting being performed in direct sunlight during hot days. Either erect a shade or perform this operation during the cooler part of the day or night. Do not vibrate as this will induce excessive air entrapment and result in a poor bearing area upon curing. Head pressure is the preferred way to assist flow. Construct a head box or funnel 1-2 feet deep to place the grout in hard to reach places. Never allow the level of grout to fall beneath that of the base plate, because this will result in trapped air and voids. This product is intended for horizontal applications only. Please read Material Safety Data before using. Please refer to the *General Epoxy Instructions* for complete details on proper application during cold and hot weather.