

MINING / CONSTRUCTION

TEKROK PRO 2500

RAPID HARDENING MIX AND POUR MATERIAL

DESCRIPTION

TekRok Pro 2500 is a one component, very rapid hardening, cementitious patching material for concrete roads, bridge decks, parking garages etc. It may be extended with aggregate to allow full depth patching repairs. TekRok Pro 2500 is supplied as a ready to use dry powder requiring only the addition of water. TekRok Pro 2500 is a specially formulated blend of special cements, additives and carefully graded aggregates which when mixed with water provides a 10 – 15 minute working time followed by an extremely fast strength development. Each 60 lb bag of TekRok Pro 2500 material creates coverage of approximately 0.4 cubic feet.



USES

TekRok Pro 2500 is used to repair concrete roads, bridge decks, and parking garages.

ADVANTAGES

- Chloride -free composition allows development of high early strengths without the use of chlorides
- Low shrinkage minimizes shrinkage cracks and internal stresses
- High density provides low permeability minimizing infiltration of water and de-icing chemicals

APPLICATION METHOD PREPARATION

The substrate must be structurally sound; all disintegrated or unsound concrete must be removed from the area to be patched. Dust, oil, grease and other contaminants must be removed. Edges of areas to be patched must be vertical, steep angle cut or chipped to a minimum depth of 1/4 inches. All exposed reinforcing bar should be wire brushed or sand blasted to remove rust. Flush area to be repaired with clean water to remove dust and dampen the concrete. Prior to placement of TekRok Pro 2500, remove all surface water. For maximum bond, the substrate must be kept damp prior to placement of TekRok Pro 2500.

MIXING

Use a mortar type or standard concrete-type mixer to ensure optimum mixing. Job size should dictate the capacity of the mixer. Mix for two minutes. Start with five pints of water added to the mixer per bag of

TECHNICAL DATA SHEET



TekRok Pro 2500. Add up to another 1/2 pint to achieve desired consistency.

Do not mix by hand and do not overwater. For applications over 1 inch deep, TekRok Pro 2500 should be extended by adding up to 25 – 30 lbs of 3/8-inch coarse aggregate such as pea gravel. The aggregate must be non-reactive, clean, and well-graded. Aggregate selected must also be saturated surface dry, have low absorption, and high density. Use the following sequence of addition; water followed by aggregate (if required), followed by TekRok Pro 2500.

PLACEMENT

Fifteen (15) minutes are allowed to mix, place and finish TekRok Pro 2500 in normal temperatures 70 °F (21.1°C). The prepared mortar must be scrubbed into the substrate filling all pores and voids. Force material against the edge of the repair working toward center. After filling the repair, screed off excess. Allow repair to set to the desired thickness, then finish. If a smoother finish is desired, use a magnesium float. Seal the edges and saw cuts with slight troweling.

The minimum application thickness is 1/4 inch as a mortar and 1 inch extended with aggregate. The maximum application thickness is 6 inches extended with aggregate.

To prevent buildup, clean tools and mixer frequently with water.

To control setting times, cold water should be used in hot weather, and hot water used in cold weather. The minimum ambient and surface temperature is 45°F and rising.

CURING

As per ACI recommendations for Portland cement, concrete curing is required. Moist cure with wet burlap and polyethylene, a fine mist of water or a curing compound meeting ASTM C309. Moist cure should begin immediately after finishing. If necessary, protect newly applied material from rain. To protect from freezing, cover with insulating material.

TECHNICAL DATA

The data below is laboratory data only. It may vary in practice due to thermal exchange between cement and substrate, temperature and other factors.

Parameter	Time / Value
Compressive Strength ASTM C109	1 hr / 3000 psi (20.6 MPa)
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	2 hrs / 5000 psi (34.4 MPa)
	3 hrs / 6000 psi (41.3 MPa)
	4 hrs / 6500 psi (44.8 MPa)
	1 day / 9000 psi (62.0 MPa)
	7 days / 11,000 psi (75.8 MPa)
	28 days / 11,500 psi (79.2 MPa)
Compressive Strength ASTM C39	28 days / 10,000 psi (69.0 MPa)
Flexural Strength ASTM C78	1 hr / 475 psi (3.2 MPa)
	3 hrs / 535 psi (3.6 MPa)
	1 day / 755 psi (5.2 MPa)
	7 days / 1140 psi (7.8 MPa)
	28 days / 1200 psi (8.2 MPa)
Freeze / Thaw Resistance ASTM C666	500 cycles / RDM @ 94%
Bond Strength by Slant Shear ASTM C882	1 day / 3500 psi (24.1 MPa)
AOTIII GGGZ	7 days / 3600 psi (24.8 MPa)
	28 days / 3,900 psi (26.8 MPa)
Modulus of Elasticity ASTM C469	28 days / 5450 (ksi)
Time of Setting ASTM C402	Initial Set / 20 min
	Final Set / 25 min
Rapid Chloride Permeability ASTM C1202	28 days / classified "very low"



SAFETY INSTRUCTIONS AND LIMITATIONS

Use of product in extremely high or low temperatures will affect set times.

Wet cement is alkaline. As such it is incompatible with acids, ammonium salts, and phosphorous.

PACKAGING AND TRANSPORTATION

TekRok Pro 2500 is available in 50 lb bags, 48 bags per pallet or 2000 lb supersacks.

STORAGE AND SHELF LIFE

Twelve months, in cool dry conditions.

DISPOSAL

If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Dispose of material in accordance with all applicable federal, state/provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

APPROVALS AND CERTIFICATES







an ISO 9001:2015 Quality Management System Certified Company.

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ADDITIONAL DOCUMENTATION

Started more than 135 years ago, Minova is a global manufacturer and supplier of chemical and mechanical earth control products and support equipment. With manufacturing plants on five continents and operations in more than 25 countries, Minova is an industry-leading provider of ground support solutions for the underground mining, construction and energy industries.

If further information is required consult Minova Americas website: www.minovaglobal.com.

- TekRok Pro 2500 Safety Data Sheet (SDS)
- Minova TekRok Pro 2500 Product Specification

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