

Tekcrete 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.

Advantages

- Very rapid hardening- open to vehicle traffic in one hour
- Low shrinkage- minimizes shrinkage cracks and internal stresses at the bond line.
- Not gypsum based- superior durability
- Easy application- just add water, mix and apply
- Freeze /thaw resistant
- Excellent resistance to de-icing chemicals
- High density provides low permeability minimizing infiltration of water and de-icing chemicals

Description

Supplied as a ready to use dry powder requiring only the addition of water. Tekcrete Pro 2500 is a specially formulated blend of special cements, additives and carefully graded aggregates which when mixed with water provides a 10 – 15 mins working time followed by an extremely fast strength development. Each 50 lb bag of Tekcrete Pro 2500 contains approximately 0.4 cubic feet of material.

Instructions for Use

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 area to be patched must be vertical, steep angle cut or chipped to a minimum depth of 1/4 ins. All exposed reinforcing bar should be wire brushed or sand blasted to remove rust. Flush area to be repaired with clean water to remove all dust and dampen the concrete. Prior to placement of Tekcrete Pro 2500 remove all excess water.

For maximum bond, the substrate must be kept damp prior to placement of the Tekcrete Pro 2500.

Mixing

Use a mortar type or standard concrete-type mixer to ensure optimum mixing. Mix for two minutes. Job size should dictate the capacity of the mixer. Start five pints of water added to the mixer per bag of Tekcrete Pro 2500. Add up to another 1/2 pint to achieve desired consistency. Do not mix by hand and do not over water.

For applications over 1ins deep Tekcrete Pro 2500 should be extended by adding up 25- 30 lbs of 3/8 inch coarse aggregate such as pea gravel. The aggregate must be non reactive, clean, well graded, saturated surface dry, have low absorption and high density. Use the following sequence of addition, water followed by aggregate (if required) followed by Tekcrete Pro 2500.

Placement

15 mins are allowed to mix, place and finish Tekcrete Pro 2500 in normal temperatures (70F). 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 stiffness 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 1 inch as a mortar and 6 ins extended with aggregate.

To prevent build up, 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. Minimum ambient and surface temperatures 45F 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 C-309. Moist cure should begin immediately after finishing. If necessary protect newly applied material from rain. To protect from freezing, cover with insulating material.

Shelf Life

Twelve months, in cool, dry conditions.

Packaging

Available in polyethylene lined 60 lb bags, 48 bags per pallet or 2000 lb supersacks.

Compressive strength ASTM C109 2 inch cubes	
1 Hour	2,500 psi
1 Day	8,800 psi
7 Days	9,400 psi
28 Days	12,500 psi

Additional Data
Shear bond strength >3200 psi at 28 days ASTM C882
Flexural strength 1hr 750 psi, 1 day 1200 psi, 28 days 1740 psi ASTM C 348
Drying shrinkage 0.018% at 28 days. Wet expansion 0.03% at 28 days ASTM C341
"Very low" permeability to chlorides ASTM C1202

*Independent 3rd party testing