TARGET® TRAFFIC PATCH™ FINE

PRODUCT

TARGET® TRAFFIC PATCH™ FINE consists of specially modified Portland cement and fine aggregates combined in closely controlled proportions to give a rapid setting material for the repair of concrete. The product meets the requirements of ASTM C928 for "Very Rapid Hardening Concrete" repair materials. The rapid strength gain properties are maintained at temperatures even as low as 3 °C (37 °F). The product contains no calcium chloride or other admixtures likely to accelerate the corrosion of reinforcing steel.

The TARGET TRAFFIC PATCH FINE is an exact blend of specialty cements, fine sand and admixtures which incorporates polypropylene fibers and is intended for use in patches up to 25mm (1 inch) thick.

COLOR

Concrete grey

USES

TARGET TRAFFIC PATCH is designed for use as a repair material for cast-in-place or precast concrete where rapid setting and strength gain of the repair are required. Typical applications include patching of bridge decks, roads, curbs, sidewalks, parking decks and warehouse floors where the repaired area must be returned to normal service conditions within two hours of placing the repair mix. The material is intended to be used in intense traffic environments or anywhere impact loading will occur.

YIELD

When mixed as directed, each 25 kg (55 lb) bag of TARGET TRAFFIC PATCH will yield approximately 0.43 ft^3 (12.1 liters) of repair material.

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TYPICAL PROPERTIES

When mixed with sufficient water to give a slump of 90 to 100 mm (3 1/2 to 4 inches), TARGET TRAFFIC PATCH FINE has the following typical properties:

PROPERTY	**TYPICAL VALUE**	
SETTING TIME, (ASTM C403) minutes Initial at 20 °C (68 °F) Final at 20 °C (68 °F)	 25 45	
WORKING TIME, minutes, at 20 °C (68 °F)	20	
AIR CONTENT,(ASTM C 231) - % Average Volume	5	
COMPRESSIVE STRENGTH (ASTM C 109)	**MPa**	**lb/in^2**
at 1 hour after initial set	14.8	2,150
at 3 hours after mixing	20.7	3,000
at 6 hours	23.8	3,450
at 24 hours	34.5	5,000
at 28 days	51.7	7,500
Scaling Resistance in Presence of Deicing Salt. (ASTM C672) after 50 cycles of freezing and thawing.	No Scaling (Rating 0)	
Bond Strength (ASTM C882)	24 hours – 5.4 Mpa (790 psi) 7 days – 13.0 Mpa (1890 psi)	
Modulus of Elasticity (ASTM C496)	GPa (psi x 10_6) 28 days – 31.9 (4.63)	
Length Change (ASTM C928/ C157)	Wet - % +0.016 Dry - % -0.031	
Resistivity (HAS 1S-05-01)	7 day (ohm-cm) - 2130 28 day (ohm-cm) - 19,700	

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Porosity (ASTM C642) Porosity (ASTM C642) Unit Mass, SSD, kg/m3 (pcf) Volume permeable voids	Absorption, soaked % 4.72 Absorption, Boiled % 4.88 2,261 (141.1) 10.5
Chloride Content %, Water Soluble (ASTM C1218)	0.011
Sulphate Content, mg/kg dry-wet Water Soluble (AASHTO T290)	2050
Chloride Content, % Acid Soluble (AASHTO T260)	0.016
Freeze Thaw Durability (ASTM C666) – 300 cycles Visual Assessment	Durability Factor % 102.1 No visible cracks

NOTE:

1. These properties are typical for mixing and initial curing temperatures of 21 °C (70 °F).
2. Compressive strength determined on 50 mm (2 inch) cube specimens for moist cured at 23 ± 2 °C (73 ± 3 °F) after 24 hours.

PROCEDURES

1. Remove loose or unsound concrete and other deleterious materials by chipping; saw cutting, scarifying, sandblasting or other mechanical means. A minimum repair thickness of 12 mm (1/2 inch) with square cut or bell cut edges is preferable. Feather edging is not recommended.
2. Remove dust or loose material from the repair area.
3. Saturate the repair area with water, and then allow the concrete to come to a surface-dry condition just before placing the repair mix. **DO NOT** use a Bonding Agent with Target Traffic Patch.
4. Utilize the TARGET TRAFFIC PATCH **FINE** for repair areas less than 25 mm (1 inch) in thickness.
   NOTE: TRAFFIC PATCH without fibers can be manufactured on special request.
5. Add approximately three-quarters of the required water to the mixer. 2.48 liters (2.62 US quarts) of water is usually sufficient at this stage for each 25 kg (55 lb) bag of product. DO NOT exceed 3.3 liters (3.49 US quarts) of liquid per 25 kg (55 lb) bag of Target Traffic Patch Fine. Water and mix temperatures, and the temperature of the surface to which the mix is to be applied, should be not less than 3 °C (37 °F) and not more than 30 °C (86 °F). During warm weather the use of iced water can reduce mix temperatures and prevent excessively short setting times. During cold weather the use of hot water, and storage of TARGET TRAFFIC PATCH in a warm, dry place before use, will prevent excessively long setting times.

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6. Mix until the material has been thoroughly blended and the required consistency has been obtained. A mixing time of 2 minutes is usually adequate.
7. Place the mixed material as rapidly as possible and consolidate well to ensure freedom from voids. Work the mix into the prepared concrete surface to ensure bonding over the full area.
8. If material in the mixer begins to thicken or set, discard the mix. DO NOT add more water.
9. Complete surface finishing operations as quickly as possible. Any conventional concrete finishing techniques may be used.
10. Clean the mixer between batches. Partially set material in the mixer can accelerate the setting of subsequent batches.

CURING

- Under normal conditions moist curing of TARGET TRAFFIC PATCH for 24 hours is desirable, but not essential.
- In hot, dry weather conditions, wet cure for as long as possible.
- Protect from freezing for the first 24 hours, and from temperatures below -3 °C (27 °F) for 72 hours.

CAUTION

- TARGET TRAFFIC PATCH is designed for use only as a patching or filling material.
- In cases where the appropriate grade of TARGET TRAFFIC PATCH for a repair is not clear, contact Target Products Ltd or your TARGET Distributor for advice.

SPECIFICATION GUIDE

Repair concrete shall consist of premixed, dry ingredients produced and packaged in accordance with ASTM Standard C928 for “very rapid hardening” cementitious materials for concrete repairs. When mixed and placed in accordance with the manufacturer's directions, the repair concrete shall develop a compressive strength of not less than 20.7 MPa (3000 psi) after three hours at 21 °C (70 °F).

PACKAGING

TARGET Traffic Patch (Fine & Coarse) are available in 25 kg (55 lb) bag; 56 bags per pallet. Target Traffic Patch can also be packaged in various size Bulk Bags upon request.

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