

TECH TOP PREMIUM

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PRODUCT

TARGET® Tech Top Premium is a self-leveling, pumpable floor leveler. The product consists of accurately weighed Portland cement, fine aggregate and chemical admixtures.

COLOR

White

USES

TARGET Tech Top Premium is designed for use as a self-leveling, pumpable, wear surface

- over new concrete
- over concrete slabs damaged by rain or frost
- over hollowcore or precast concrete slabs
- over any suitable rigid sub-floor in building renovation or restoration work.

ADVANTAGES

The major advantages of this product include:

- Fully Self Levelling
- Strong enough to walk on after two hours (7 MPa [1000 PSI])
- Very hard, durable wearing surface (50 Mpa [7300 PSI] after 28 days)
- Accepts integral color and acid staining
- Bright white color finish in natural state

PROCEDURES

1. The concrete slab or floor must be free of dirt, dust, laitance, efflorescence, oil, grease or any water-soluble material. In most cases mechanical roughening of the floor by shotblasting, sandblasting, or high pressure water blasting is desirable. **DO NOT acid etch. Proper surface preparation is essential.** Plug all holes in floor.
2. Depressions extending more than 19mm (3/4 inch) deeper than the average surface being leveled should be prefilled to the average surface level 24 hours

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before priming and placing TARGET Tech Top Premium. Prefilling can be accomplished with TARGET Traffic Patch, or with TARGET Tech Top Premium extended with clean 3/8 inch aggregate.

3. The day before, or not less than 2 hours before placing TARGET Tech Top Premium, the floor surface must be sealed and primed with TARGET Primer. Drying time for the primer will vary with ambient temperature and relative humidity. The primer is mixed with water before application to achieve the required penetration of the floor. Mix TARGET Primer with clean water at a ratio of 1-part TARGET Primer to 3-parts water by volume. The diluted primer should be brushed or rolled (Do Not Spray) onto the floor to achieve an even coating thickness. No pools of moist primer should be present where TARGET Tech Top Premium is applied over TARGET Primer. Allow the primer to become surface-dry before applying TARGET Tech Top Premium (minimum 2 hours). In cases where the substrate is very absorbent a second coat of primer should be applied after the first coat has dried. Allow the second coat to dry before applying the floor leveler.
4. Mix TARGET Tech Top Premium into water in a mechanical mixer or mixer/pumping machine. High speed shear mixers or paddle mixers are suitable - rotating drum mixers are NOT recommended. Always add TARGET Tech Top Premium to water. DO NOT add water to dry TARGET Tech Top Premium. The usual maximum water requirement is 4.9 Litres (5.18 US quarts) of water per 25 kg (55 lb) bag. A higher water content will reduce the strength of the cured compound and introduce shrinkage.
5. After 2 minutes mixing, the compound can be placed or pumped.
6. Place the mixture either by pouring directly from the mixing container or, on larger projects, by pumping. A suitable pumping rate is 15 to 42 liters/minute (4 to 11 US gal/minute). Pumping distances should not exceed 45m (150 ft). Pumping may be interrupted for up to 10 minutes without emptying the hose. For longer delays the hose must be flushed with water.
7. Place the mix in the approximate location required, using brooms, spiked rollers or screeds if necessary to assist placement. The mix is self-leveling and no final screeding or trowelling is necessary. The compound remains fluid for approximately 12 minutes after mixing. Thicknesses varying from 1 to 20mm (featheredge to 3/4 inch) can be used to achieve a level surface. An average thickness of 4 to 6mm (approximately 1/4 inch) is desirable.
8. Clean all mixing and pumping equipment with water after use.

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9. Do not allow traffic on the leveled floor until the TARGET Tech Top Premium has developed sufficient strength - usually after 2 hours.
10. Where an adhesive is to be used to attach floor covering to TARGET Tech Top Premium, the underlayment must be allowed to dry until the moisture content is within the limits specified by the adhesive manufacturer. A test patch is advisable. Usually a drying period of 24 hours is necessary before applying a non-breathable covering over TARGET Tech Top Premium.

CAUTION

- A test application of TARGET Tech Top Premium should be performed when bonding to the substrate is questionable.
- When an adhesive is to be used to attach floor covering to TARGET Tech Top Premium, follow the adhesive manufacturer's directions regarding the required moisture content of the substrate – see Procedures, Section 9.
- High ambient temperatures will reduce flow time. For high temperature application the use of ice to cool mix water is advisable.

CURING

Although moist curing of TARGET Tech Top Premium is not required or desirable, the underlayment should be protected against drafts or other sources of premature drying during installation and for the first 2 hours after installation is completed. A relative humidity of 50% to 70% is ideal for curing. Do not apply any membrane-forming compound to the surface of TARGET Tech Top Premium for at least 24 hours.

TEMPERATURE

Mixture and air temperatures should be 5° to 25° C (41° to 78° F) during the application of TARGET Primer and TARGET Tech Top Premium. Protect from freezing for at least 72 hours after placing. If space heaters are used to increase air temperatures, care must be taken to avoid damage to the TARGET Tech Top Premium surface due to carbonation or excessive removal of water from the compound.

PACKAGING

TARGET Tech Top Premium is supplied in 25 kg (55 lb) bags.

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TYPICAL PROPERTIES OF TARGET TECH TOP PREMIUM

FLUIDITY , mm (inches) Modified ASTM C191 2 minutes after mixing	230 – 250 (9 - 10)
WATER REQUIREMENT , liters/25 kg bag (US quarts/55 lb bag)	4.75 to 4.9 (5 to 5.18)
FLEXURAL STRENGTH , MPa (lb/sq.in.) ASTM C348 at 1 day at 7 days at 28 days	7.7 (1110) 13.6 (1970) 17.2 (2490)
COMPRESSIVE STRENGTH , MPa (lb/sq.in.) ASTM C349 (air cured) at 24 hours at 7 days at 28 days	36 (5200) 43 (6200) 50 (7250)
DRYING SHRINKAGE , % volume ASTM C596, modified at 28 days	0.03 typical 0.08 maximum
TENSILE BOND STRENGTH , MPa (lb/sq.in.) CAN/CSA-A23.2-6b at 7 days at 28 days	1.68 (243) 2.0 (290)
TABER ABRASION RESISTANCE TEST (ASTM D4060) Loss @ 200 cycles 500 cycles 1000 cycles Remarks: Wheel Type: H22, Wheel Load: 500 g	0.43 g (0.026 oz) 1.20 g (0.043 oz) 2.52 g (0.089 oz)

COVERAGE

After preliminary filling of deep irregularities in the sub-floor, the typical quantity of TARGET Tech Top Premium required for general floor levelling is 10 to 15 kg/m² (2 to 3 lb/ft²). Approximate quantity estimates can be based on the following yield data for 25 kg (55 lb) bags:

Bags/m ³	64	m ² /bag	2.4 at 6mm thickness
Bags/yd ³	49		
ft ³ /bag	0.55	ft ² /bag	25 at 1/4 inch thickness

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SPECIFICATION GUIDE

The floor leveller shall be TARGET Tech Top Premium or an approved equivalent product containing Portland cement, fine sand and chemical admixtures. The floor leveller shall be self-levelling for a period of not less than 12 minutes after mixing and shall develop a compressive strength of not less than 50 MPa (7250 lb/in²) after 28 days. The self-levelling underlayment course shall be applied to a typical thickness of 6 mm (1/4 inch), but may be varied in thickness from featheredge to 20 mm (3/4 inch) to correct elevation deficiencies.

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