

# SC100D

## (ULTRA HIGH PERFORMANCE SHOTCRETE)

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### PRODUCT

TARGET® SC100D is a one-component, pre-packaged, cementitious shotcrete containing silica fume, latex polymer and other admixtures designed to give a high strength, shrinkage-compensated shotcrete.

### USES

TARGET SC100D is a high performance shotcrete suitable for new construction and repair applications. Typical uses include vertical and overhead applications to bridges, piers, beams, tunnels, parking structures, water and sewage treatment facilities, pulp and paper process areas, petrochemical process areas, dams and marine structures.

### ADVANTAGES

- a one-component, pre-packaged product.
- ultra-low rebound compared to conventional shotcrete
- high early and ultimate compressive and flexural strengths
- excellent bond strength to properly prepared substrate surfaces
- provides a "breathable" surface; not a vapor barrier
- excellent freeze/thaw resistance
- low permeability and high sulphate resistance
- excellent barrier to chloride ion diffusion and thus enhanced resistance to corrosion of embedded reinforcing steel
- sticks tenaciously to overhead and vertical surfaces

### PROCEDURES

#### SURFACE PREPARATION

1. Correct preparation of the surface to which TARGET SC100D is to be applied is essential. All loose or unsound concrete must be removed. Any surface contaminants such as oil, grease or dust should be removed by sandblasting or high pressure water. Where possible, edges of repair area should be square cut or slightly undercut. Feather edging should be avoided. All exposed reinforcement should be exposed to 100% of its circumference. To ensure a corrosion free bond, all exposed reinforcing steel should be sandblasted to remove all traces of rust or other contaminants prior to installation of TARGET SC100D. If TARGET SC100D is not installed the same day, the reinforcement should be re-sandblasted prior to installation of material.
2. The prepared surface should be adequately prewetted at least one hour prior to commencing application of TARGET SC100D, leaving it saturated surface dry just prior to application of mortar.

Product performance is affected by many factors, including storage, method and conditions of application and use. User testing is ESSENTIAL to determine suitability of product for intended method of application and use. Target's SOLE WARRANTY is that the product has been manufactured to specifications. No oral or written information or advice shall increase this warranty or create new warranties. Target's SOLE LIABILITY is to replace product proved defective. In no event shall Target be liable for any consequential, indirect or other damages whether arising from negligence or otherwise.

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### APPLICATION

1. TARGET SC100D can be applied using conventional dry mix shotcrete equipment.
2. When applying TARGET SC100D care should be taken not to proceed too far ahead of the finishing crew as TARGET SC100D can stiffen rapidly in warm weather.
3. TARGET SC100D can be finished to varying surface textures ranging from a nozzle finish, wood or rubber float finish to a smooth, steel trowelled finish.
4. It is very important that the amount of water added to the SC100D at the nozzle is kept to a minimum.

### TYPICAL PROPERTIES OF TARGET SC100D

PROPERTY	TEST METHOD	TYPICAL PERFORMANCE DATA
<b>COMPRESSIVE STRENGTH</b> at 1 day at 7 days at 28 days	ASTM C109	4250 psi (29 MPa) 8500 psi (59 MPa) 11000 psi (76 MPa)
<b>FLEXURAL STRENGTH</b> at 7 days at 28 days	ASTM C346	1100 psi (7.6 MPa) 1600 psi (11 MPa)
<b>BOILED ABSORPTION</b> at 7 days	ASTM C140	4.0%
<b>RAPID CHLORIDE PERMEABILITY</b>	AASHTO-T277	<600 Coulombs

For additional information about TARGET SC100D contact your local TARGET representative.

### PACKAGING

Available in 25 kg (55 lb) polyethylene-lined paper bags.

### CURING

Commence curing immediately after the finishing is complete, preferably by continuous moist curing for a minimum of three days. A curing compound meeting ASTM C309, such as TARGET Cure & Seal, may be used after 24 hr wet cure. However, caution should be exercised so that no curing compound gets onto surfaces to which mortar is to be applied as it may affect bonding.

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### TEMPERATURE

Do not apply TARGET SC100D below 5° C (41° F) or above 35° C (95° F). Protect from freezing for a minimum of 24 hours after placement.

### YIELD

The approximate yield of one bag of SC100D is 0.47 ft<sup>3</sup> per 55 lb bag, 57 bags per yd<sup>3</sup> or 75 bags per m<sup>3</sup>.

### CAUTION

TARGET SC100D is darker than normal concrete. When color match is a consideration a test application should be made.

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