

SILICA FUME DENSIFIED

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PRODUCT

- TARGET® Densified Silica Fume (DSF) is a ready-to-use dry densified silica fume used to produce very durable, high strength concrete with very low permeability and low rebound shotcrete. TARGET DSF chemically reacts with calcium hydroxide in cement paste acting as a superpozzolan. This reaction yields a calcium silicate hydrate gel enhancing strength and durability by consuming the weak calcium hydroxide crystals. The ultra-fine amorphous silica particles also help fill the voids between cement particles further contributing to the formation of an extremely dense, less permeable concrete.
- For additional information on TARGET DSF, or its use in developing a concrete mix with specific performance characteristics, contact your local TARGET representative.

USES

TARGET DSF is recommended for use whenever high performance concrete or shotcrete is required. Higher strengths make new structural designs possible by reducing column sizes, production, transportation, and erection costs. The lower chloride permeability makes microsilica concrete produced with TARGET DSF highly suitable for parking structures, bridge decks, marine structures, or wherever distress due to corrosion of embedded steel can result. Higher durability by producing a dense, less permeable concrete makes TARGET DSF an excellent solution to the problem of deterioration of industrial floors in aggressive environments. In shotcrete TARGET DSF reduces rebound and increases overhead buildup.

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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ADVANTAGES

The addition of TARGET DSF microsilica demonstrates the ability to achieve:

• INCREASED STRENGTH	- high early and later age compressive flexural strength
• EASIER HANDLING	- densification allows for easier augering and silo storage
• VERY LOW PERMEABILITY	- very low chloride permeability - 5 to 20 times increased electrical resistivity - greatly reduced water permeability
• HIGHER DURABILITY	- increased chemical resistance - improved freeze-thaw resistance - increased abrasion resistance - increased resistance to alkali aggregate reaction
• SHOTCRETE	- lower rebound - higher buildup

TYPICAL PROPERTIES FOR TARGET DENSIFIED SILICA FUME

- TARGET DSF is a classified densified silica fume
- Appearance: dark grey powder
- Specific gravity: 2.2
- Densified bulk density: approximately 650 kg/m³ (41 lb/ft³)
- Amorphous SiO₂: 88-92

PACKAGING

TARGET DSF is supplied in 11.34kg (25 lb) bags and 1,000kg (2,204 lb) bulk bags.

CAUTION

The color of concrete or shotcrete containing TARGET DSF is darker than standard concrete. When color match is a consideration a test mix should be made.

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