

FONDU EXPANDING GROUT

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PRODUCT

TARGET® Fondu Expanding Grout consists of accurately weighed high alumina cement, fine aggregate and shrinkage compensating admixtures. The product is designed to be used as dry pack, plastic or flowable grout. In normal temperature ranges of 10° C to 24° C (50° F to 75° F), the grout will have a slight expansion prior to final set. The grout contains no chlorides or accelerators and is proportioned to provide a maximum water/cement ratio of 0.4 when added water does not exceed the maximum specified.

COLOR

Dark grey/brown

USES

TARGET Fondu Expanding Grout is designed for use in applications such as:

- Permanently anchoring highway furniture such as posts, signs, parking meters.
- Permanently fixing anchor bolts, columns, railings and other fixtures in concrete, rock or masonry.
- Low temperature grouting. In certain situations TARGET Fondu Expanding Grout can be used at ambient temperatures as low as -5° C (23° F). Contact TARGET Products Ltd for details of grouting procedures at temperatures below 10° C (50° F).

PROCEDURES

1. Add the grout to clean water with continuous mixing to achieve the required consistency. Approximate water requirements are:

DRY PACK

2.7 liters (6.0 lb) per 25 kg (55 lb) bag

PLASTIC

3.8 liters (8.4 lb) per 25 kg (55 lb) bag

FLUID

4.9 liters (10.8 lb) per 25 kg (55 lb) bag

IMPORTANT: Do not exceed 4.9 liters (10.8 lb) of water per 25 kg (55 lb) bag of grout. Water temperature should be 10° C to 16° C (50° F to 60° F).

2. For plastic or flowable consistencies the grout is best mixed in a high speed shear mixer, but a Jiffler mixer may be used. Use of rotating drum mixers is not recommended.
3. Place, using methods established for normal grouting procedures depending on application and consistency required.
4. Pot life of grout is approximately 1 hour at 20° C (68° F).
5. Continuous moist curing for 3 days is necessary for most grouting procedures.

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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TYPICAL PROPERTIES OF FONDU EXPANDING GROUT

CONSISTENCY	FLUID	PLASTIC	DRY PACK
FLOW	20-30 seconds by flow cone	80% - 100% by flow table	Forms a ball
VOLUME CHANGE % expansion after setting at 3 and 14 days at 28 days	Up to 0.3 Not less than at 3 and 14 days		
SEGREGATION	None	None	None
DENSITY , kg/m ³ (lb/ft ³)	2,240 (140)	2,320 (145)	2,350 (147)
COMPRESSIVE STRENGTH MPa (lb/in ³) at 1 day at 28 days	42 (6,200) 56 (8,200)	55 (8,000) 75 (10,900)	70 (10,100) 80 (11,600)
APPROXIMATE YIELD bags/m ³ bags/yd ³ liters/bag ft ³ /bag	77 59 13 0.46	79 61 12.6 0.45	81 63 12.4 0.43

NOTE: TARGET Fondu Expanding Grout is laboratory tested in accordance with Corps of Engineers Specification for Non-Shrink Grouts, CRD-C621 and ASTM Standard Specification C1107 for Packaged Dry, Hydraulic-Cement Grout (Non-shrink). Mixing water at 16° C (60° F), laboratory at 21° C (70° F). Strength samples 50.8mm (2 inches) cubes, confined.

CAUTION

- Under warm, moist conditions, cured high alumina cement products can undergo chemical conversion and reduction of strength properties. TARGET Fondu Expanding Grout is, therefore, NOT recommended for use in applications where the grout is subjected to high humidity and temperatures over 27° C (80° F).

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- TARGET Fondu Expanding Grout is NOT recommended for pours with least dimensions (thickness) over 75mm (3 inches).

• SPECIFICATION GUIDE

Grout shall be TARGET Fondu Expanding Grout or approved equivalent non-metallic grout based on high alumina cement and meeting the requirements of US Corps of Engineers Specification CRD-C62I or ASTM C1107 for Non-Shrink Grout. The grout shall develop a compressive strength of not less than 69 MPa (10,000 lb/in²) after 28 days when mixed and cured in accordance with the manufacturer's directions.

LABORATORY TESTING OF TARGET FONDU GROUT AT LOW TEMPERATURES

In a laboratory test program conducted by Hardy Associates (1978) Ltd, the following results were obtained.

TEMPERATURE OF MIXING, SETTING, CURING	-3° C 27° F	+3° C 37° F	+19° C 66° F
SETTING TIME ASTM C807			
Initial Set, hr:min	6:00	5:30	4:07
Final Set, hr:min	6:40	6:45	4:43
EXPANSION, CRD-C621			
at 24 hours, % vol.	0.44	0.33	0.37
at 4 days, % vol.	0.44	0.33	0.37
COMPRESSIVE STRENGTH CRD-C277, MPa (lb/in ²)			
at 24 hours	1.4 (200)	44.8 (6,500)	68.4 (9,920)
at 7 days	37.9 (5,500)	50.8 (7,370)	73.1 (10,600)
at 28 days	51.7 (7,500)	63.4 (9,200)	75.5 (10,950)
CONSISTENCY	Fluid	Fluid	Fluid

NOTE:

- Water:grout ratio at all three temperatures was held constant at that required for flow of 23 seconds by flow cone (CRD-C621) at 19°C (66°F). No loss of flow at low temperatures was observed.
- At -3° C (27° F) ice crystals formed on outer surfaces of samples, causing slight surface damage. No ice damage was visible in the interior of compressive strength samples after testing.
- Temperatures of compressive strength samples were adjusted to 18 °C to 20° C (64° F to 68° F) before testing.

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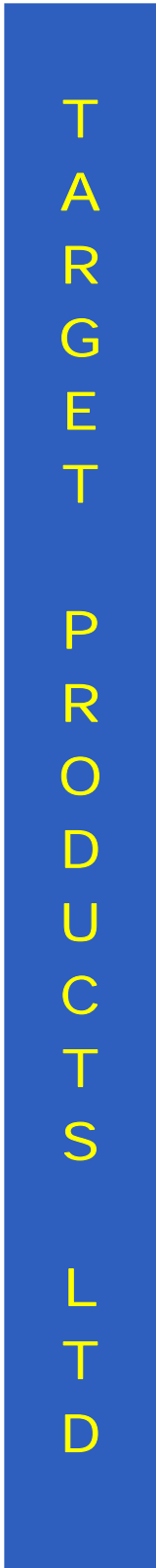
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Contact Target Products Ltd for additional information on low temperature grouting procedures.



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