

DESCRIPTION: NON SHRINK GROUT is a sanded, Portland cement-based, non-shrink grout. This product is designed for use as a dry pack, plastic or flowable high strength grout. It will exhibit slight expansion prior to initial set in normal working temperatures. NON SHRINK GROUT meets H.A. Simons 1S-05.01.

USES: NON SHRINK GROUT is a high strength, structural grout that can be used in many grouting applications such as:

1. Grouting under baseplates, columns and equipment not subjected to heavy impact or vibratory loads.
 2. Grout jacking of concrete slabs.
 3. Grouting of anchor bolts.
 4. Underpinning of structures.
 5. Grouting holes or cracks in concrete
 6. Void backfilling in tunnels.
 7. Grouting of post-tensioned structural sections.
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ADVANTAGES:

1. High strength.
2. Non-bleeding/non-segregating.
3. Non-corrosive/non-chloride/non-metallic.
4. Shrinkage compensating.
5. Usable over a wide range of consistencies from dry pack to flowable.
6. Can be pumped at a flowable consistency.

PROCEDURES:

1. **SURFACE PREPARATION:** All surfaces to be in contact with NON SHRINK GROUT must be entirely free of oil, grease, laitance or other foreign substances. Roughen exposed surfaces and clean thoroughly with potable water, leaving the concrete saturated but free of standing water.
2. **MIXING:** NON SHRINK GROUT should be thoroughly mixed to the desired consistency by varying the amount of water used. Mix water should be between 9 °C and 18 °C (48 °F to 65 °F). For plastic or flowable consistencies, the grout is best mixed in a high speed shear mixer. For dry pack consistency, a mortar mixer or hand mixer may be used.

<u>CONSISTENCY</u>	<u>RECOMMENDED MAX. WATER/25 kg (55 lb.)</u>
Dry Pack	2.9 litres (0.8 US gal)
Plastic	3.8 litres (1.0 US gal)
Flowable	5.1 litres (1.3 US gal)

3. **PLACING:** Place NON SHRINK GROUT at the desired consistency using established grouting procedures.
4. **CURING:** Once NON SHRINK GROUT has set, moist curing for at least one day is recommended.
5. **POT LIFE:** The pot life of the grout is approximately one hour.

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TECHNICAL DATA: The data outlined below is representative of typical values achievable under controlled laboratory conditions. Results obtained in the field may vary from those stated.

	<u>Test Method</u>	<u>Dry Pack</u>	<u>Plastic</u>	<u>Flowable</u>
Flow	ASTM C 827	Forms Ball	115 - 130 %	20 - 30 sec.
Height Change %	CSA A 23.2-1B	N/A	N/A	0.1 - 4.0 %
Working Time		.5 hours	1 hour	1 hour
Plastic Expansion (% vol. unconfined)		N/A	1 - 3 %	0.1 - 4.0 %
Hardened Expansion @ 28 days	ASTM C 1090	N/A	+0.067 %	+0.052 %
Bond to Steel (MPa)	Lane & Best	N/A	N/A	>0.2
Plate Void (%)	H.A.S./Levelton	N/A	N/A	0.1
Porosity @ 14 days				
Boiled Absorption (%)	ASTM C 642	N/A	N/A	7.85 %
Vol. of Permeable Voids	ASTM C 642	N/A	N/A	15.5 %
Resistivity (ohm-cm)	H.A.S./Levelton	N/A	N/A	
7 day				2500
28 day				7330
Final Set	CRD C621	3 hours	7 hours	7.8 hours
Bleeding (% volume)	CSA A 23.2-1B	Nil	Nil	Nil
Segregation	ASTM C 940	Nil	Nil	Nil
Compressive Strength MPa (psi):	CAN3 A23.2-1B (ASTM C 109)			
1 - Day		30 (4350)	25 (3625)	20 (2900)
3 - Day		43 (6235)	35 (5075)	30 (4350)
7 - Day		60 (8700)	50 (7250)	45 (6525)
28 - Day		75 (10875)	65 (9425)	55 (7975)
Density - kg/m ³ (lb/ft ³)		2344 (146)	2247 (140)	2129 (133)
Yield - m ³ / bag (ft ³ / bag)		.012 (.42)	.013 (.45)	0.014 (.50)

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LIMITATIONS:

- Adhering to recommended water additions is very important. Exceeding the maximum recommended water content per sack will result in inferior physical properties.
- The grout should not be used where it will be subjected to severe repetitive dynamic or cyclic loadings or vibrations.
- The grout performs best when fully restrained or confined on all surfaces.
- NON SHRINK GROUT is not designed for use as a topping. Other Basalite products such as Top 'n Bond are more appropriate for topping uses.
- The ideal ambient temperature for grouting is 5 - 24 °C (41 - 75 ° F). Grouting in cooler temperatures will retard set and strength gain. Grouting in warmer temperatures will decrease working time.
- The temperature of the mixed grout should be kept between 5 ° C and 21 ° C (41 ° F to 70 ° F).
- For pours exceeding 50 mm (2 inch) thickness and .28 m² (3 ft²) in area, add 12.5 kg (28 lb.) of clean washed well graded 10 mm (3/8 inch) minus stone to each 25 kg (55 lb.) sack of BASALITE NON SHRINK GROUT to achieve adequate results.
- Liability for damages or defective goods shall be limited to the refund of the purchase price or product replacement.

PACKAGING:

NON SHRINK GROUT is packaged in 25 kg (55 lb.) triple-lined paper bags. All Basalite Dry Mix can be custom packaged to suit specific project requirements. Shelf life is one year when kept dry above 5 ° C and not exposed to open atmosphere.

SAFETY PRECAUTIONS:

BASALITE NON SHRINK GROUT contains Portland cement and other carefully selected additives. Normal safety wear such as rubber gloves, dust mask and safety glasses, used to handle conventional cement-based products, should be worn. Material Safety Data Sheets are available upon request.