

**DESCRIPTION:** MICROSIL® 1107 GROUT is a natural-aggregate, Portland cement-silica fume based grout, which conforms to ASTM C 1107. It is intended for use under applied loading such as is found under machinery and is designed for use where a change in height below initial placement height is to be avoided.

**USES:** MICROSIL® 1107 GROUT is a precision grout designed to be used in grouting:

- Heavy machines and column base plates.
- Bridge bearing plates.
- Structural building members.
- Rods & bolts.
- Where dimensional stability is essential.

**ADVANTAGES:**

- Can be mixed and applied over a wide ambient temperature range.
- Uniform product performance over a wide ambient temperature range.
- High early and ultimate strengths from a fluid consistency.
- Easily pumped into voids as thin as 6 mm (.25 inch).
- Non-corrosive, non-chloride.
- Conforms to ASTM C 1107 Type “C” expansion over a wide range of temperatures.
- Suitable for severe service conditions.
- Conforms to CRD C 621, Corps of Engineers.
- Sulphate resistance equal to Type HS cement grouts.

**PROCEDURES:** SURFACE PREPARATION: All surfaces to be in contact with MICROSIL® 1107 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.

**MIXING:** MICROSIL® 1107 GROUT should be thoroughly mixed to the desired consistency by varying the amount of water used. Mixing water should be between 5 °C and 30 °C (41 °F to 86 °F). The grout is best mixed in a high speed shear mixer.

**PLACEMENT:** Place MICROSIL® 1107 GROUT at the desired consistency using established grouting procedures.

**CURING:** Once MICROSIL® 1107 GROUT has set, moist curing for at least 3 days is recommended.

**POT LIFE:** The pot life of the grout is approximately one hour.

CONSISTENCY

RECOMMENDED MAX. MIXING  
WATER/25 kg (55 lb.)

Plastic	3.4 litres (0.9 US gal)
Flowable	3.9 litres (1.0 US gal)
Fluid	5.1 litres (1.3 US gal)

# MICROSIL® 1107 GROUT

**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>WORKING CONDITION</u>	<u>MINIMUM</u>		<u>LABORATORY</u>		<u>MAXIMUM TEMPERATURE</u>	
Pre-Mix Temp. (° C)	<u>TEMPERATURE</u>		<u>TEMPERATURE</u>			
1) Grout	6		22		30	
2) Water	5		22		30	
3) Equipment	7		22		30	
Mixed Temp. (° C)	9		24		33	
WORKING TIME	FRESHLY MIXED	MAX. POT LIFE	FRESHLY MIXED	MAX. POT LIFE	FRESHLY MIXED	MAX. POT LIFE
Water per bag (litre)	5.1		5.1		5.1	
Flow, seconds	35	66	24	28	26	23
Early Height Change %	--	--	+2.09	--	--	--
Bleeding (%)	Nil	Nil	Nil	Nil	Nil	Nil
Segregation (%)	Nil	Nil	Nil	Nil	Nil	Nil
Hardened Grout Height Change (%)						
3 days	+0.003	+0.009	0	0	+0.009	+0.016
14 days	+0.018	+0.034	+0.007	+0.006	+0.015	+0.025
28 days	+0.022	+0.043	+0.010	+0.022	+0.037	+0.061
Final Set(hours)	8.7	7.3	7.8	8.3	7.5	7.7
Compressive Strength:						
1 Day, MPa (psi)	24.6 (3567)	27.4 (3973)	26.9 (3901)	29.7 (4307)	29.5 (4278)	30.2 (4379)
3 Days, MPa (psi)	43 (6235)	50.5 (7323)	46.2 (6699)	49.2 (7134)	49.7 (7207)	51.8 (7511)
7 Days, MPa (psi)	55.8 (8091)	62.8 (9106)	55.8 (8091)	60.8 (8816)	63.8 (9251)	62.3 (9019)
28 Days, MPa (psi)	70.0 (10150)	79.6 (11542)	73.9 (10715)	76.7 (11122)	78.2 (11339)	82.9 (12021)
Density, kg/m <sup>3</sup> (pcf)	2119	---	2157	---	2136	---
Yield m <sup>3</sup> /sack	0.0145	---	0.0143	---	0.0141	---
Yield ft <sup>3</sup> /sack	0.51	---	0.50	---	0.50	---

**LIMITATIONS:**

- Adhering to recommended water additions is very important. Exceeding the maximum recommended water content per sack will result in inferior physical properties.
- The ideal ambient temperature for grouting is between 5 - 30 ° C (41 - 84 ° F). Grouting in temperatures below 5 ° C will retard set and strength gain, grouting in temperatures warmer than 30 ° C will decrease working time.
- The temperature of the mixed grout should be kept between 5 ° C and 35 ° C (41 ° F to 95 ° F).
- For pours exceeding 50 mm (2") thickness and .28 m<sup>2</sup> (3 ft<sup>2</sup>) in area, add 12.5 kg (28 lb.) of clean washed well graded 10 mm (3/8") minus stone to each 25 kg (55 lb.) sack of MICROSIL<sub>a</sub> 1107 GROUT to achieve adequate results.
- Liability for damages or defective goods shall be limited to the refund of the purchase price or product replacement.

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**PACKAGING:** MICROSIL®1107 GROUT is packaged in 25 kg (55 lb) triple-lined paper bags.

All Basalite Dry Mix can be custom packaged to meet specific project requirements. Shelf life is one year when kept dry above 5 °C and not exposed to open atmosphere.

**SAFETY PRECAUTIONS:** MICROSIL® 1107 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.

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