

MASTERFLOW® 713

High precision, nonshrink, natural aggregate grout

DESCRIPTION:

MASTERFLOW® 713 grout contains specially graded, natural aggregates and is formulated to be used at any consistency from fluid to damp-pack. It is recommended for applications requiring precision support where early form stripping and/or shoulder trimming are required. Where early form removal is not required and extended working time is needed, MASTERFLOW 928® grout offers extended working time and higher ultimate strengths.

RECOMMENDED FOR:

- Applications where shrinkage must be eliminated and where a grout similar in appearance to concrete and mortar is desired
- Precision equipment, baseplate, soleplate and column grouting
- Grouting precast wall panels, beams and columns, concrete systems, structural building members and curtain walls
- Grouting anchor bolts and dowel rods

FEATURES/BENEFITS:

- A ready-to-use grout that hardens free of bleeding, settlement or drying shrinkage when mixed, placed and cured at any consistency – fluid, flowable, plastic or damp-pack.
- Can be pumped into intricate areas or into areas inaccessible by conventional grouting methods.
- Provides shrinkage compensation through the expansion of hydrating mineral components.
- Develops high strengths at a fluid consistency.
- Meets all of the requirements of CRD-C 621, Corps. of Engineers Specification for Nonshrink Grout and ASTM-C 1107.

PACKAGING/ESTIMATING:

MASTERFLOW 713 grout is packaged in 55 lb (25 kg) moisture-resistant bags. Shelf life is 18 months.

One 55 lb (25 kg) bag of MASTERFLOW 713 grout mixed with 12.0 lb (5.4 kg) [1.44 U.S. gal (5.4 L)] of water produces approximately 0.52 ft³ (0.015 m³) of grout. More or less water may be necessary to meet consistency requirements, thus increasing or decreasing the yield.

PERFORMANCE DATA:

Typical Compressive Strengths

	CONSISTENCY					
	Plastic ¹		Flowable ²		Fluid ³	
	psi	MPa	psi	MPa	psi	MPa
1 day	3,400	23	3,200	22	1,000	7
3 day	5,500	38	4,800	33	3,200	22
7 day	7,000	48	6,500	45	4,500	31
28 day	8,500	59	7,500	52	7,000	48

¹ 100% flow on flow table, ASTM-C 230, 5 drops in 3 seconds.

² 135% flow on flow table, ASTM-C 230, 5 drops in 3 seconds.

³ 20 to 30 second flow by Corps of Engineers Flow Cone Method, CRD-C 611.

NOTE: The data shown are based on controlled laboratory tests. Reasonable variations from the results given above can be expected. Field and laboratory tests should be controlled on the basis of the desired placing consistency rather than strictly on the water content.

If the work requires that strength tests be made at the jobsite or in the laboratory, do not use cylinder molds. Use 2 in. (5 cm) cube molds per ASTM-C 109. Consult your local Master Builders representative for special procedures required when mixing and casting cubes of fluid, nonshrink grout for compressive strength tests, CRD-C 621, as modified for pre-mixed products.

APPLICATION:

Consult the MASTERFLOW 713 grout product bag for details on the installation of MASTERFLOW 713 grout. Master Builders recommends that the user request the services of the local representative for a pre-job conference to plan the installation.

CURING:

Cure all exposed grout shoulders by wet curing for 24 hours and applying a Master Builders recommended curing compound such as MASTERKURE® curing compound.

LIMITATIONS:

- The temperature of the mixed grout should be in the range of 45 to 70 °F (7 to 21 °C). **Do not use water in an amount or at a temperature that will produce a flow of less than 20 seconds (CRD-C 611) or cause the mixed grout to bleed or segregate.** If outside that range, special information on high or low temperature grouting techniques is available from your local Master Builders representative.
- For pours greater than 6 in. (15 cm) deep, consult your Master Builders representative for additional installation procedures.
- When the grout will be in contact with steel cables which are, or will be, stressed over 80,000 psi (552 MPa), use MASTERFLOW[®] 816 cable grout.
- Do not vibrate grout. Steel straps inserted under the plate may be used to aid in movement of the grout.
- For even greater impact resistance – a desirable property in grout subjected to severe, dynamic operating forces and repetitive loading – use metallic-reinforced EMBECO[®] 885 or 636 grout. Applications which would require such resistance include crane rail plates, heavy presses and steel and aluminum rolling mills.

RELATED BULLETINS:

Material Safety Data Sheet - MASTERFLOW 713

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