

MasterInject 1380

Structural concrete bonding process injection resin

DESCRIPTION

MasterInject 1380 is a two-component, solventless, low-viscosity liquid adhesive for pressure injection grouting.

MasterInject 1380 was developed specifically for use with the Structural Concrete Bonding Process (SCBP) and is available only through certified applicators of this process.

RECOMMENDED USES

For structurally rebonding cracked concrete sections

- For filling porous or honeycombed concrete or grout.
- For anchoring bolts, dowels and reinforcing bars.
- For grouting areas pre-packed with aggregate to form bearing supports.

FEATURES AND BENEFITS

- **Low viscosity** -Excellent penetration of fine fissures.
- **Resistance to creep and stress relaxation**.- due to High heat deflection temperature
- **Fast cure rate**- fast return to loaded conditions.
- **Bonds in wet and cold conditions**- Excellent adhesion even under adverse conditions

PROPERTIES

	Part A	Part B	Mixed
Form	Liquid	Liquid	Liquid
Colour	Clear	Black	Black
Specific Gravity@ 25°C,kg/m ³	1160	980	1100
Mixing Ratio (by volume)	2	1	
(by weight)	100	44	
Viscosity,cps,@ 4°C	7700	1200	4400
@ 25°C	640	190	350
@ 37°C	260	75	150

Application temperature range	4-37°C	
Minimum cure temperature	0°C	
Properties of cured material Tested at 25°C		
Tensile strength, N/mm ² (ASTM D638)	62	
Tensile elongation,% (ASTM D638)	2.5	
Flexural strength, N/mm ² (ASTM D790)	82.7	
Flexural modulus, N/mm ² (ASTM D790)	4137	
Compressive yield, N/mm ² (ASTM D695)	110	
Compressive modulus, N/mm ² (ASTM D695)	1585	
Heat deflection temperature,°C (ASTM D648)	57	
Slant shear, N/mm ² (AASHTO T-237)		
Temperature	4°C	20 MPa
Cure condition	3 days, wet concrete.	
Type of failure	80% adhesive	
	4°C 7 days, wet concrete.	31MPa
	100% adhesive	
	25°C 1 day, dry concrete.	34.5MPa
	no failure	

APPLICATION

For **MasterInject 1380** SCBP injection resins, the crack faces inside the concrete are considered to be the "substrate". The substrate may be moist or even totally soaked with water, such as in water-filled cracks. Though the adhesion of the injection resin on water-saturated substrates will still be sufficient, a slight decrease of the adhesion characteristics as compared to applications in dry concrete will occur.

Substances preventing the proper adhesion of the resin to the substrate, such as oil, marine-growth, etc., have to be removed using appropriate techniques such as ultra-high pressure water jetting, flushing with detergents, etc. The resin is mixed and installed, using the model 20-3N injection-equipment (or other suitable pressure injection equipment), which forms an integral part

MasterInject 1380

of the SCBP, available through Master Builders Solutions-Approved Applicators only.

ESTIMATING DATA

Usage is dependent on the crack volume and best determined by onsite trials.

PACKAGING

MasterInject 1380 in units of 16.4Kg.

SHELF LIFE

MasterInject 1380 has a shelf life of 12 months. Store out of direct sunlight, clear of the ground on pallets protected from rainfall

PRECAUTIONS

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the Master Builders Solutions Material Safety Data Sheet (MSDS) from our office or our website.

© = registered trademark of Master Builders Solutions in many countries

MasterInject 1380 asean v1-1115

STATEMENT OF RESPONSIBILITY	The technical information and application advice given in this Master Builders Solutions publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.
NOTE	Field service where provided does not constitute supervisory responsibility. Suggestions made by Master Builders Solutions either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not Master Builders Solutions Construction Chemicals, are responsible for carrying out procedures appropriate to a specific application.

Master Builders Solutions Hong Kong Limited
Unit 2, 20/F, EW International Tower
120-124 Texaco Road, Tsuen Wan, N.T., Hong Kong
Tel: +852 2408 4400
Fax: +852 2408 4401