

MASTERFLEX™ 801

Low viscosity, hydro-swelling, thermosetting resin for crack injection via injection hoses and packers.

Description

MASTERFLEX 801 is low-viscosity, hydro-swelling, thermosetting resin based on vinyl ester methacrylate chemistry for injection of fine cracks and injecting the MASTERFLEX 900 hoses.

MASTERFLEX 801, being water based and low-viscous is best suited for arresting leakages in concrete using medium to high pressure injection pumps.

Once set, MASTERFLEX 801 shall swell up to 2.5 times by volume creating watertight and flexible seal in the cracks and joints.

Uses

- Injection into MASTERFLEX 900 hose system or directly into concrete and rock. Due to its low viscosity micro cracks and capillaries can easily be filled by injection.
- In contact with water it increases its volume. This enables sealing to take place even when the crack moves. No other materials have the same characteristics.
- The swelling is dependent on the amount of water available.

Advantages

- Good bond to damp surfaces. In contact with water no extraneous reactions take place, therefore no gas bubbles or foam layer are formed, both of which would hinder the bonding process.
- Resistant to weak acids, salt solutions, oils, fats and hydrocarbons.
- In wet and humid conditions, there is a balance between the water content of the adjacent medium and MASTERFLEX 801.
- Remains swelled in moist concrete
- The expansion of MASTERFLEX 801 is reversible and is unaffected by ageing or electrolytic water.
- Withstands permanent water pressure.
- Suitable for injection with one component or two component injection pumps.
- Effective in a saline environment
- Satisfies the requirements of drinking water regulations and is therefore suitable for sealing drinking water containers.

Typical Properties

Chemical base	: Acrylate polymer
Mixed Density	: 1.065 kg/litre
Viscosity	: < 40 cps at 20°C
Application temperatures	: +5°C to 40°C
Pot life	: 20 – 60 Minutes at 20°C (see mixing chart)
Setting time	: 1 – 2 Hours

Specification Clause

Injection resin shall be MASTERFLEX 801, hydro-swelling, water based, low-viscous, thermo-setting resin based on vinyl methacrylate chemistry. The Injection resin shall have re-swelling capacity up to 2.5 times by volume in potable water. The injection resin shall contain accelerator to regulate the setting times and shall not of expanding foaming type product or non-swelling formulation. The injection resin shall be effective in saline water by exhibiting positive expansion.

Directions for use

Mixing

Fill bottle for Hardener Solution (empty) with 500 ml water, add 1 bag of Hardener water. Shake bottle until Powder is completely dissolved. Mix the required amount of resin with Hardener Solution, **1 Litre resin requires 50ml of Hardener Solution**. Prior to use add accelerator according to the supplied chart. **The amount of accelerator per litre depends on the required pot-life at the present ambient temperature**. Mix the injection resin until colour is uniform and inject with in pot life.

		Pot-life Required (in minutes)				
		20 min	30 min	40 min	50 min	60 min
Application Temperatures	5°C			120	105	
	10°C		142	105	80	
	15°C		82	72	65	62
	20°C	77	65	55	47	42
	25°C	68	55	45	37	32
	30°C	50	35	30	27	25
	35°C	42	30	25	22	20
	40°C	32	25	20	20	
	45°C	27	22			
Amount of accelerator per 1 litre of Resin (in ml)						

Application

The injection of MASTERFLEX 801 must be done by high pressure injection pump. All parts touching the fluid should be made either of stainless steel or chrome coated. Product containers should be made of plastic. Protect resin from sunlight and excessive heat to avoid uncontrolled polymerisation.

Do not mix large amounts and always choose the volume mix in accordance with the expected consumption and time frame.

The pot-life is very much dependent upon ambient temperature and the amount mixed. A pot-life chart is available upon receipt of MASTERFLEX 801 that shows the amount of accelerator required at different temperatures.

Curing / after treatment:

Self curing

Equipment care

All equipment used in processing must be cleaned with soap and water, both when work is interrupted and on conclusion of work.

Packaging

MASTERFLEX 801 is supplied in three components, 22.066 kg pack as under:

Component	Resin Liquid	Hardener Powder	Accelerator Liquid
Colour	White	White	Yellow orange
Packing	2 x 10 Kg	3x 22 grams	2 x 1 Kg

Storage and Shelf life

Store under cover, out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air-conditioned environment.

Shelf life is 12 months when stored as above.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice please consult BASF's Technical Services Department.

Safety precautions

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapour until product fully cured or dried). Treat

splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use. Do not reuse containers for storage of consumable item. For further information refer to the material safety data sheet. MSDS available on demand or on BASF construction chemicals web site.

Note

All BASF Technical Data Sheets are updated on regular basis; it is the user's responsibility, to obtain the most recent issue.

Field services where provided, does not constitute supervisory responsibility, for additional information contact your local BASF representative.

Disclaimer

Whilst any information contained herein is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations made by us, our representatives or distributors, as the conditions of use and the competence of any labour involved in the application are beyond our control.

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Page 2 of 2

