

MASTERFLEX

® 700

High performance, elastomeric joint sealant, (gun and pouring grades)

Description

MASTERFLEX 700 is a high grade, polysulphide based sealant possessing outstanding resistance to deterioration due to weathering, ozone, ultra-violet light and attack by chemicals present in industrial atmospheres. It has the ability to withstand repeated cycles of compression and extension over a wide temperature range, and has excellent adhesion properties to all materials commonly employed in building and construction work.

MASTERFLEX 700 can be supplied in pouring and gun grade for sealing horizontal and vertical joints where movement is expected, or where the performance specification is too rigorous for most common mastic and joint sealers. It is ideal for use in expansion joints in reinforced concrete structures such as bridges, reservoirs, water treatment works, sea walls and roads, etc. It can also be used in floors subject to heavy usage where a high resistance to damage is required.

Typical properties*

* Properties listed are only for guidance and are not a guarantee of performance.

Colour	Grey brown
Solid content	99%
Viscosity	Thixotropic paste
Tack free at 25°C	24 hours
Staining	Generally non-staining
Slump Gun Grade	Nil
Hardness shore A	25
Application temperature	5°C to 50°C
Recommended movement	Transverse $\pm 25\%$ M.A.F. (Movement Accommodation Factor)

Packaging

Gun Grade: 3 litre sealed containers

Pouring Grade: 3 litre sealed containers

Standards

ASTM C 920-02 Type M, Class 25

BS 5212 : Part 1 : 1990 Compliance

WRAS Approval for use in potable water

TT-S-00227E General compliance

Estimated set and cure times

Property	5°C	10°C	25°C	40°C
Pot life	24 hrs	18 hrs	2 hrs	1 hr
Initial set	5 days	72 hrs	24 hrs	5 hrs
Full cure	8 wks	5 wks	2 wks	7 days

Joint size

Joint size may range from a minimum of 5mm to a maximum of 50mm wide. Joints with cyclic movements should have a width:depth ratio 2:1 and designed so total movement does not exceed the 25% M.A.F. related to the joint width. Sealant depth shall not exceed joint width.

Minimum sealant depth recommended:

- 5mm for metals, glass and other impervious surfaces.
- 10mm for all porous surfaces.
- 20mm for joints exposed to hydrostatic pressures.
- 5mm below flush for joints exposed to traffic.

Application procedure

Joint preparation surface treatment:

Concrete & Masonry	Surfaces must be clean and dry. Wire brush thoroughly and remove dust and all contaminants.
Metals	Remove any corrosion or millscale by grit or shotblast, wirebrush, grinder or chemical remover. Degrease the surfaces with clean cloths soaked in oil-free cleansing solvent.
Wood (bare)	Wood surfaces must be clean and dry, cut back or abrade where necessary to sound timber.
Glass and glazed materials	Thoroughly clean the surfaces with clean cloths soaked in oil-free cleansing solvent.
Coating surfaces	Coating should be removed and the surfaces treated as above.

Where required, a bond breaking tape should be applied before priming.

Priming:

The correct primer must always be used.

Surface application:

MASTERFLEX PRIMER NO 1

Porous surfaces (such as concrete and masonry)

Non-porous surfaces (such as metals, glass and glazed surfaces)

- Application of primer should not be carried out below 4°C.
- A single coat of primer should be applied by brush in accordance with the instructions on the primer tins. The primer must be allowed to dry to a tack free state before applying MASTERFLEX 700.
- MASTERFLEX 700 should be applied within 3 hours of primer, otherwise repriming will be necessary.

Application temperatures:

MASTERFLEX 700 should be applied when the ambient temperature is between 4°C and 50°C. When the temperature is below 10°C storage at room temperature for several hours will ease mixing and application.

Mixing MASTERFLEX 700:

- Mix and use one complete unit at a time. Do not sub-divide.
- Both gun grade and pouring grade are supplied in base / reactor combined units.
- Mix for 5 - 10 minutes using a suitable paddle fitted to a 500 rpm electric drill moving the paddle completely through the mass of the material. The sides and base of the container should be periodically scraped down with a palette knife to ensure all of the curing agent is completely blended with the base compound.
- Failure to completely disperse curing agent throughout the base compound will result in uncured sealant. Once mixed MASTERFLEX 700 should be used immediately.

Application:

- MASTERFLEX 700 is formulated to be applied using a sealant gun but may be applied by trowel if required.
- Sealant guns are fitted with conical nozzles which can be cut to suit the joint width. The sealant should be gunned into the joint using an even trigger pressure, cleaning the nozzle occasionally to avoid contamination. Deep joints should be filled in two or more runs, to prevent air entrapment.

Once the sealant has been applied, a small timber spatula, soaked in soapy water, should be used to compact the sealant into the joints and to achieve a smooth polished finish. Any masking tape which has been applied should be removed before the sealant cures.

- Mixing and application equipment should be cleaned immediately.

Coverage

MASTERFLEX 700 (length of joint in metres filled per 1 litre of material)

Depth of joint mm	Width of joint mm				
	10	15	20	25	30
10	10	6.7	5	4	3.33
15		4.45	3.33	2.67	2.23
20			2.5	2	1.67
25				1.6	1.33

Storage

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 at least 12 months when stored between 5°C and 35°C.

Safety precautions

The components and mixed sealant should not be left in contact with skin for prolonged periods. Gloves should be worn and the use of a barrier cream is strongly recommended. Solvent must not be used for cleaning the hands. Use an industrial cleaner and wash with soap and water. For further information including disposal instructions refer to the Material Safety Data Sheet.

Note

Field service, where provided, does not constitute supervisory responsibility. For

additional information contact your local
Degussa representative.

Degussa reserves the right to have the true
cause of any difficulty determined by accepted
test methods.

Quality

All products produced by Degussa certified
manufacturing facilities, are produced to
conform to systems designed to meet
internationally recognised quality standards.

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