



The Chemical Company

MASTERFLEX[®] 3000

Tape for MASTERFLEX[®] Sealing System for irregular and unconventional joints

DESCRIPTION

MASTERFLEX[®] joint sealing system consists of two products; **MASTERFLEX 3000**, a tape and CONGRESIVE 1438 epoxy.

The **MASTERFLEX 3000** is a highly elastic, rot-proof and chemically resistant sealing membrane

CONGRESIVE 1438 is a two part epoxy compound which establishes a strong bond to various types of substrate.

FIELDS OF APPLICATION

Sealing of construction joints, expansion joints, connecting joints, cracks and crevices, etc. Adheres to many types of substrate such as concrete, mortar, plaster work, steel iron, aluminium, stoneware, glass and epoxy.

Typical uses are for concrete tanks, cast and cement-pipe connections, bridge decks, tunnels, water towers and reservoirs, ponds, silos, containers, secondary tanks.

MASTERFLEX 3000 can be applied on dry or slightly humid substrates. It is ideal for joints with very large expansion or irregular, broken joint flanks.

MASTERFLEX 3000, of grey colour, is weather and waterproof.

FEATURES AND BENEFITS

- Durable
 - Long lasting elasticity, even at low temperatures
 - Root resistant
 - Resistant to a wide range of chemicals
- Cost effective
- Easy to apply
 - No extra cleaning or activating of the tape
 - User friendly welding of **MASTERFLEX 3000** overlaps
 - Can be applied horizontally, vertically and even overhead.

TYPICAL PERFORMANCE DATA

Description	Specifications	Results
Surface appearance	Flat/smooth	Flat
Thickness, mm DIN 533537 5.3	1 or 2	Approx. 1/ Approx. 2
Tensile Strength, MPa (modulus between elongation of 2-5%) DIN 53457 S2	<30	20.7
Weight per unit Area, g/m ² DIN 53352 5.4	- -	Approx. 900 (1mm) Approx. 1800 (2mm)
Colour (RAL)	Approx. 7045	Approx. 7045
Tensile Strength, MPa DIN 53504 S2	>6	9.3 / 7.8
Elongation at Break, % DIN 53504 S2	>400	600
Tear Propagation Resistance, N/cm DIN 53363	-	641 / 695
Cold Flexibility SIA 280/3	-20°C	-35°C
Resistance to Aging (70d/70°C) SIA 280/8 DIN 53504 S2	Loss in weight < 3% Reduction in Elongation < 30%	Passed Passed
Shore A Hardness ISO 868	75 ± 10	80
Potable Water Test Swiss Food Act	Suitable	Passed
Bitumen Compatibility DIN 16726/5.19	Compatible	Passed
Water Pressure Test Ø30mm	24h 1 bar	Passed
Resistance to further weathering, DIN 53363	Approx. 600N/cm	
Accelerated weathering, SIA 280/3, -50°C	No cracks	

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MASTERFLEX[®] 3000

PROPERTIES

Shore-Hardness A (ISO 868)	: approx. 80
Tensile strength (DIN 53504 S2)	: > 6 N/mm ²
Elongation at break (DIN 53504 S2)	: approx. 600 %
Resistance to further cracking (DIN 53363)	: approx. 600N/cm
Accelerated weathering (SIA 280/3) -50°C	: no cracks
Waterproofing	: passes the joint pressure test
Compatibility with bitumen	: is compatible

APPLICATION

Surface Preparation

Contact surfaces must be clean and free from dust, grease, water, oil, and other contaminants impairing adhesion.

Concrete should be at least 4 weeks old.

In order to provide maximum adhesion, concrete surfaces should be mechanically abraded.

Placing

Mix CONGRESIVE 1438 adhesive thoroughly, following the guidelines of the manufacturer. Apply the well mixed CONGRESIVE 1438 on both sides along the joint or crack on the prepared substrate, preferably with a notched trowel or spatula. Layer thickness should be about 1 – 2 mm.

When sealing cracks, or narrow joints sheeting to be unstuck for a minimum width of 20 mm (use masking tape, remove before placing **MASTERFLEX 3000**).

Place the clean and well aired **MASTERFLEX 3000** immediately into the adhesive layer and press well in with a roller. For very wide joints draw the Tape suitably into the joint so that a hollow is formed.

For best protection cover the **MASTERFLEX 3000** also with CONGRESIVE 1438.

By warming up the membrane, it can be stretched over slight irregularities of the substrate. The same method can be used in case of corners, cavities, pipe crossing. If individual Tapes have to be connected into longer pieces (also T-pieces, etc.) they can easily be welded: The Tape's overlap sections to be welded are heated up by a hot air gun.

In case of negative water pressure (more than 0.3 bar) back up the membrane with an adequate support, e.g. steel sheet, etc., in particular if joints are subject to large movement.

ESTIMATING DATA

Quantities of **MASTERFLEX 3000** depend on width and length of 20 metre lengths.

PACKAGING

MASTERFLEX 3000 in rolls of 20 m length with following dimensions:

Thickness : 1mm	Width :100 mm
	150 mm
	200 mm
	250 mm
	300 mm
	500 mm
Thickness : 2mm	Width :150 mm
	200 mm
	250 mm
	300 mm
	500 mm

SHELF LIFE

MASTERFLEX 3000 can be kept for 12 months from date of manufacture if stored in well protected area away from sunlight, at ambient temperate in dry conditions.

TYPICAL APPLICATIONS

Fig 1. Sealing of cold joints

- 1 **MASTERFLEX 3000**
- 2 CONGRESIVE 1438

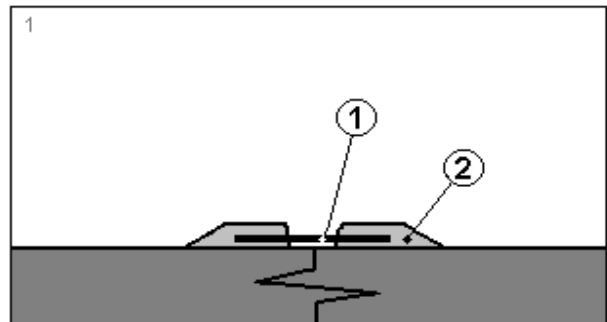
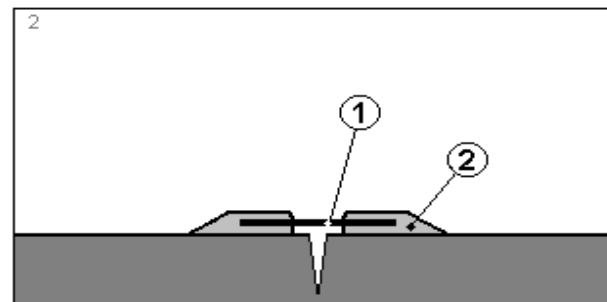


Fig 2. Sealing of cracks

- 1 **MASTERFLEX 3000**
- 2 CONGRESIVE 1438



MASTERFLEX[®] 3000

Fig 3. Sealing of expansion joints

- 1 MASTERFLEX 3000
- 2 CONGRESIVE 1438

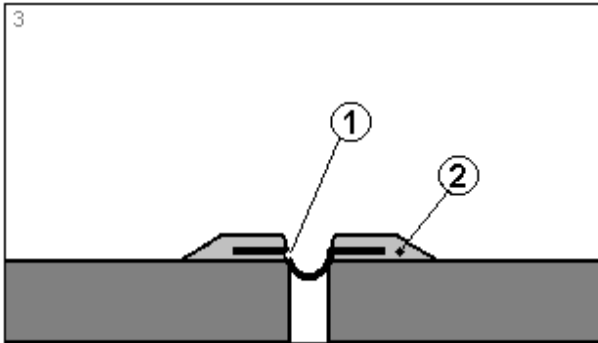


Fig 4. Hidden expansion joint e.g. car parks

- 1 MASTERFLEX 3000
- 2 CONGRESIVE 1438
- 3 nosing mortar

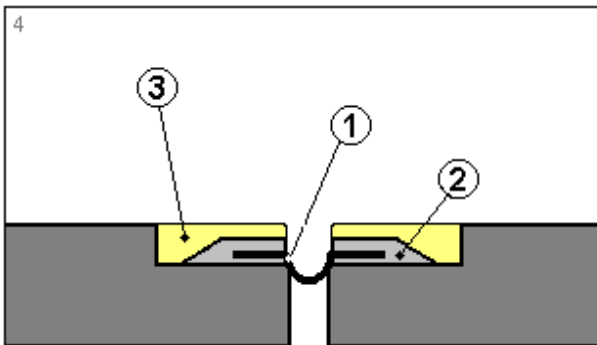


Fig 5. Sealing of a 90° construction joint

- 1 MASTERFLEX 3000
- 2 CONGRESIVE 1438
- 3 Bedding Mortar, for ex. EMACO[™]

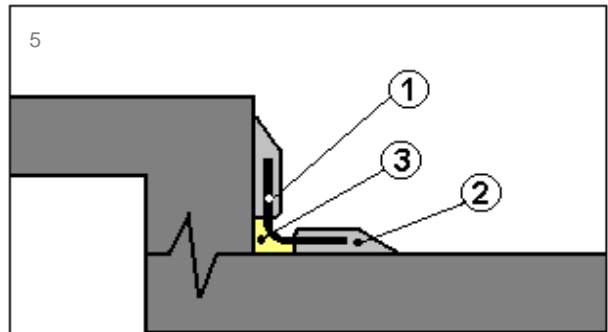
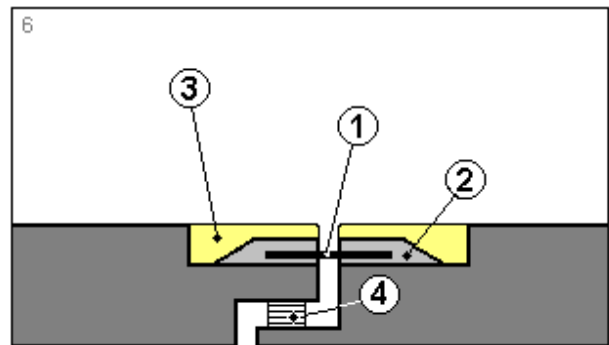


Fig 6. Waterproofing of specific joints

- 1 MASTERFLEX 3000
- 2 CONGRESIVE 1438
- 3 nosing mortar
- 4 bearing



PRECAUTIONS

For Health, Safety and Environmental recommendations, please consult and follow all instructions on the product Material Safety Data Sheet.

AN/MFLEX3000/v3/280611

STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF Construction Chemicals** 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.

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