

# MASTERFLEX™ 3000

Tape for MASTERFLEX sealing system for irregular and unconventional joints

## Description

MASTERFLEX joint sealing system consists of two products MASTERFLEX 3000 and CONGRESIVE 2200 epoxy.

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

CONGRESIVE 2200 is a two part epoxy compound which establishes a strong bond to various types of substrate.

## Uses

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, aluminum, 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 is grey coloured, weather and waterproof.

## Advantages

- Durable
- Long lasting elasticity, even at high temperatures
- Root resistant
- Resistant to a wide range of chemicals
- Cost effective
- Approved for use with potable water
- Easy to apply
- User friendly heat welding of tape overlaps
- Can be applied horizontally, vertically and even overhead.

## Typical properties

|  |  |
|--|--|
| Hardness, Shore A (ISO 868)                | : 80   |
| Tensile strength (DIN 53504 S2)            | : > 6 N/mm <sup>2</sup>                        |
| Elongation at break (DIN 53504 S2)         | : 600%   |
| Resistance to further cracking (DIN 53363) | : 600 N/cm                                     |
| Accelerated weathering (SIA 280/3) -50°C   | : no cracks                                    |
| Compatibility with bitumen                 | : Compatible                                   |
| UV resistance (SIA 280-10)                 | : No tears                                     |
| Resistance to micro-organisms (SIA 280-17) | : Resistant                                    |
| Water absorption (internal H&S method)     | : Very low absorption                          |
| Heat ageing (SIA 280-8)                    | : 5% for 1mm thickness<br>3% for 2mm thickness |
| Ozone resistance (SIA 280-7)               | : Level 0                                      |

## Standards

WRAS Approval - "Suitable for use in contact with

Potable Water". BS 6920: 2000

## Specification Clause

Joint shall be treated with MASTERFLEX sealing system consisting of MASTERFLEX 3000, rubber tape having elongation exceeding 600% and shore A hardness of 80 with CONGRESIVE 2200 as adhesive. The combine system shall be capable of providing watertight seal. The tape must have tensile strength, exceeding 6 MPa and resistance to cracking, exceeding 600N/cm when tested as per DIN 53363.

## Directions for use

### 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.

### Application

Mix CONGRESIVE 2200 adhesive thoroughly following the guidelines as mentioned in its datasheet. Apply the well-mixed CONGRESIVE 2200 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 the MASTERFLEX 3000 should not be bonded along the centre line of the tape. A minimum unbounded width of 20mm is recommended to allow for expansion and contraction.

Wipe the edges of the tape with SOLVENT NO. 2, then place the clean and well-aired tape 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. Holes punched at the edges provide added anchorage.

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 using a hot air blower.

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.

## Supply form

MASTERFLEX 3000 dimensions:

|                 |                 |
|-----------------|-----------------|
| Thickness: 1 mm | Thickness: 2 mm |
| Width 100 mm    | Width 150 mm    |
| 150 mm          | 200 mm          |
| 200 mm          | 250 mm          |

In rolls of 20m length (all sizes)

## Typical applications

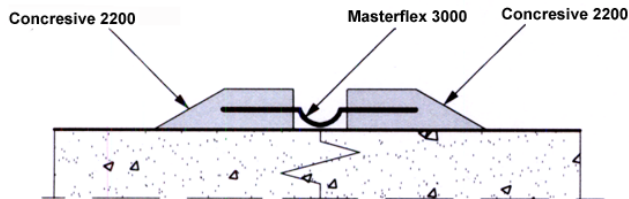


Fig 1. Sealing of cold joints

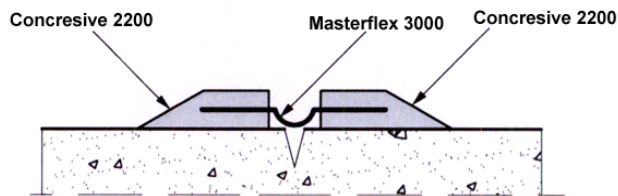


Fig 2. Sealing of cracks

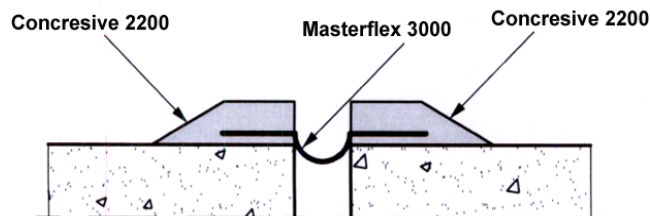


Fig 3. Sealing of expansion joints

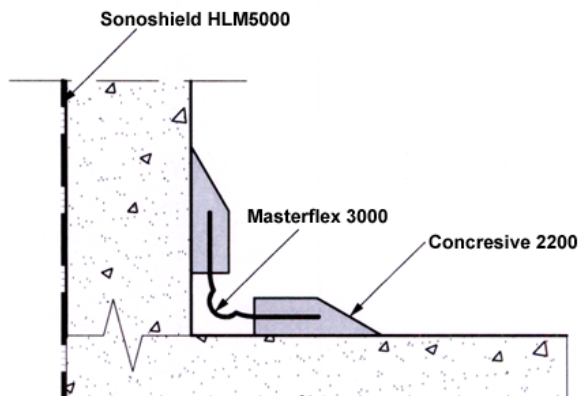


Fig 4. Sealing of a 90° construction joint

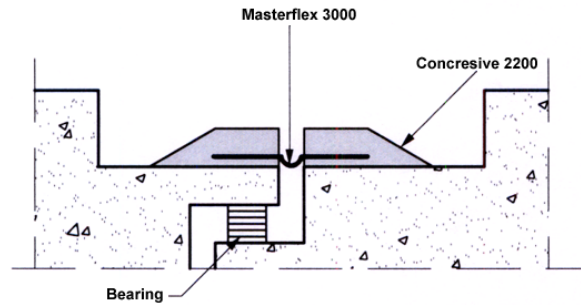


Fig 5. Waterproofing of specific joints

## 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.

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

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