



The Chemical Company

# MASTERFLEX® 250

Acrylic based fire rated joint sealant

## DESCRIPTION

**Masterflex 250** is an acrylic based sealant, formulated primarily to perform as barrier to the incursion of fire through expansion joints. **Masterflex 250** sealant is also an effective acoustic sealant.

## RECOMMENDED FOR

Sealing exterior and interior construction joints that are subject to movement (up to  $\pm 20\%$ ) in pre-cast concrete panels, blockwork and brickwork. Sealing gaps around cables, metal pipes, conduits, busways and ducts that penetrate walls, floors and ceilings. If a joint movement is not required, **Masterflex 250** sealant can be used as a putty for filling holes in fire rated substrates. Substrates include metal, concrete, plasterboard and cable coverings

## FEATURES AND BENEFITS

- **Fire rating for gaps up to 50mm**
- **Excellent acoustic sealing properties**
- **Designed for Australian conditions**
- **Good flexibility** – joint movement  $\pm 20\%$
- **Paintable**
- **One part** – no mixing
- **Very easy to apply and gives a smooth finish**
- **Low odour**
- **Non-toxic** – contains no heavy metals such as antimony, cadmium, lead or mercury
- **Intumescent** – expands when exposed to fire or heat above 90°C
- **Priming not normally required**
- **Can be applied to damp surfaces**
- **Water clean up**

## PERFORMANCE DATA

Colour	Limestone
Appearance	Thick heavy paste
Specific gravity	1.5 +/-0.1
Viscosity	Approx 1.0 million cP
Tack free time	@ 25°C 30 minutes
Working time	@ 25°C 15 minutes
Joint movement capability	$\pm 20\%$
Durometer (Shore A)	25-35
Service Temperature Range	-20 to +80°C

**Masterflex 250** sealant has achieved a four (4) hour fire rating when tested in accordance with AS1530.4 – 1990 supplemented by AS4072.1 – 1992 as well as BS476: part 20; 1987 as appropriate on a gap-sealing system protecting two joints between concrete panels. Due to variations in fire rating results using different thicknesses and types of substrates, advice should be sought concerning the suitability of **Masterflex 250** in specific applications.

**Masterflex 250** has been tested and found to perform as an acoustic sealant with Sound Transmission Class (STC) 65 rating in a wall constructed using two leaves of aerated concrete plus plasterboard facings. However, as acoustic performance is determined according to the type and dimension of substrates, advice should be sought regarding the overall design concept.

## JOINT DESIGN

The number of joints and the joint width should be designed for a maximum of  $\pm 20\%$  movement.

Depth of sealant depends on width of joint and the fire rating required.

Sealant depth must be controlled by **Closed Cell Backer Rod** or **Soft Backer Rod**. If joint movement is not required then **Masterflex 250** can completely fill the gap.

To maintain the recommended sealant depth, install backer rod by compressing into channel without stretching it lengthwise. Backer rod should be about 3mm larger in diameter than the width of the joint to allow for compression. Soft backer rod should be approximately 25% larger in diameter than the joint width. Backer rod becomes an integral part of the joint. The sealant does not adhere to it, and no separate bond-breaker is required. Do not prime or puncture the backer rod.

## APPLICATION

### Surface Preparation

Surfaces must be structurally sound, dry, clean, free of dirt, moisture, loose particles, oil, grease, asphalt, tar, paint, wax, rust, waterproofings, curing and bond breaking compounds and membrane materials. For concrete, stone and other masonry clean by grinding, sand-blasting, or wire brushing to expose a sound surface free of contamination and laitance.

**Masterflex 250** sealant will adhere to slightly damp surfaces. Areas adjacent to joints may be masked to provide a neat finish. Masking should be removed immediately after tooling. Ensure **Masterflex 250** is applied to sealed edges of plasterboard. Unsealed edges may lead to a weak bond being formed and loss of acoustic performance.

**Priming** is not required on sound, dry, clean and dust free surfaces.

### Application

Place backer rod to required depth for fire rating required. **Masterflex 250** comes ready to use. Apply by professional caulking gun. Do not open containers or sausages until preparatory work has been completed.

Fill joints from deepest point to the surface by holding a properly sized nozzle against the back of the joint.

Dry tooling is recommended. DO NOT use soapy water when tooling. Tooling results in the correct bead shape, a neat joint, and maximum adhesion.



The Chemical Company

# MASTERFLEX® 250

**Masterflex 250** sealant is suitable for painting when a firm surface skin has formed (ideally at least 24 hours should be left before painting). Care should be taken to ensure a flexible acrylic paint is used that will accommodate the same movement as **Masterflex 250**. Painting may be carried out less than 24 hours after application provided a firm skin has developed prior to painting. In cooler conditions or where the humidity is high curing will be slower so always check that a firm surface skin has formed prior to starting painting.

- Do not apply when rain exposure is likely within 24 hours of application.
- Do not apply to wet surfaces.
- **Masterflex 250** sealant may be used both for interior and exterior sealing, but is not suitable for use in water retaining structures or where ponding may occur.
- **Masterflex 250** sealant has good servicing characteristics when unprotected in internal applications. For external use, protect with a suitable exterior flashing or coating system. The coating system must be fully maintained to preserve its protective function.

## CLEANING

Immediately after use, clean equipment with soapy water. Remove cured sealant by cutting with a sharp-edged tool. Remove thin films by abrading.

## COVERAGE

JOINT SIZE	METRES PER LITRE
10 X 10mm	10
12 X 12mm	6.95
15 x 10mm	6.66
20 x 10mm	5
30 x 15mm	2.22
40 x 20mm	1.25

## CURING

Time to fully cure is highly variable and depends on width / depth of sealant applied, weather conditions, ambient temperature. Allow longer curing times in cold or damp conditions.

Do not allow water contact until at least a thick surface has formed.

The following times assume 23°C, 50% relative humidity, and a joint 20mm width by 10mm depth.

- Tack free in 1 hour depending on temperature.
- Skins overnight or within 24 hours, depending on temperature.
- Functional within 7 days, depending on temperature.
- Full cure depends on joint or gap size, typically one week in joints 10mm x 10mm, depending on temperature.
- Wider or deeper joints will require additional time.

Protect **Masterflex 250** from rain or temporary exposure to water until the sealant has developed a thick skin has developed as the surface, to avoid wash-out or emulsifying.

## PACKAGING

**Masterflex 250** is packaged in 600ml pro-pack sausages with 15 to the carton.

Storage needs to be between 5-35°C.

## SHELF LIFE

When stored correctly in un-opened containers **Masterflex 250** sealant will last 12 months.

## 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 BASF Construction Chemicals **Material Safety Data Sheet (MSDS)** from our office or our website.

AMflex250/5/1010

## 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. **BASF Construction Chemicals data sheets are updated on a regular basis and it is the user's responsibility to obtain the most recent issue.**

## NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by **BASF** either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not **BASF Construction Chemicals**, are responsible for carrying out procedures appropriate to a specific application.

**BASF Construction Chemicals Australia Pty Ltd** Incorporated in NSW A.B.N. 46 000 450 288

**Sydney-Head Office:** 11 Stanton Road Seven Hills, NSW 2147 Australia Ph. (02) 8811 4200

**Newcastle:** (02) 4961 3819 **Brisbane:** (07) 3633 9900 **Townsville:** (07) 4774 7344 **Melbourne:** (03) 9549 0300

**Adelaide:** (08) 8139 7500 **Perth:** (08) 9366 2600 **Kalgoorlie:** 0417 772 355

**BASF Construction Chemicals New Zealand Head Office:** 45 William Pickering Drive, Albany, Auckland Ph: (09) 414 7233

**BASF Websites:** [www.basf-cc.com.au](http://www.basf-cc.com.au) [www.basf-cc.co.nz](http://www.basf-cc.co.nz) [www.basf-ugc.com](http://www.basf-ugc.com)