

# MasterSeal® 470 FR

Elastomeric, multi-component, self levelling, fuel resistant joint sealant

## DESCRIPTION

**MasterSeal 470 FR** is a high grade, two component, low VOC, flame resistant, self-leveling, jet fuel resistant polysulfide sealant. **MasterSeal 470 FR** 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 and can be used on airfield runways and other areas that may be subject to fuel spillage and jet blast.

**MasterSeal 470 FR** is a joint sealant based on liquid Polysulphide polymer, which when mixed and applied, cures to form a tough rubber like seal with excellent adhesion to primed concrete, masonry, glass, aluminum and stainless-steel substrates. It has the ability to withstand repeated cycles of compression and extension over a wide temperature range without loss of adhesion and resists deterioration by weathering, sunlight, ozone, water, salt, oil and fuels, **MasterSeal 470 FR** is a pouring grade sealant used for sealing of horizontal joints.

## AREA OF APPLICATION

Resistant to jet fuels, lubricating oils and Hydrocarbon

- Jet blast Resistant
- Excellent adhesion properties
- bridges, tunnels and other civil engineering structures
- precast concrete paneling, and high-rise buildings
- concrete and brick foundations, retaining walls and bridge abutments,
- Reservoirs, water treatment works, sea walls and roads
- Secondary containment areas
- Wet areas such as kitchens, laundries, bathrooms and showers, beneath tiles
- terraces, decks and balconies
- floor joints subject to heavy usage and traffic
- Industrial areas and those subject to chemical spillage
- As a bolt hole sealant for the Waboflex REJ / Waboflex SR expansion joints

## TYPICAL PROPERTIES\*

Color	Grey
Solid content	100 %
Density	1.48 - 1.54 kg/liter
Tack free at 25°C	24 hours
Hardness shore A 25°C	17 - 25
Application temperature	5°C to 35°C
Movement Accommodation Factor	± 25%
Pot life @25°C	2 hours @ 25°C
Cure time	1 week @ 25°C
Water Immersion	MasterSeal 470 FR must be fully cured before permanent immersion

## PACKAGING

4 liter and 18 liters packs (base and catalyst)

## STANDARDS

British Standard BS 4254  
BS 5212 : Part 1 : 1990 Compliance

## ESTIMATED SET AND CURE TIMES

Property	15°C	25°C	35°C
Pot life	24 hrs	2 hrs	1 hrs
Setting time	36 hrs	16 hrs	12 hrs
Full cure	2 wks	1 wks	4 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 except joints subject to total immersion where joint profile should be 1:1.

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.

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## 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 mill scale by grit or shot blast, wire brush, grinder or chemical remover. De-grease 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.

Note 1: Where required, a bond breaking tape should be applied on the horizontal surface to avoid 3 sides bonding.

Note 2: MasterSeal 470 FR should not be used in direct contact with materials containing pitch or bitumen.

### SURFACE APPLICATION:

PRIMING : The correct primer must always be used.

**MasterSeal P 101** for Porous surfaces (such as concrete and masonry)

For non-porous surfaces (such as metals, glass and glazed surfaces) contact your local representative.

- 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 **MasterSeal 470 FR**.

- **MasterSeal 470 FR** should be applied within 3 hours of primer, otherwise re-priming will be necessary.

### APPLICATION TEMPERATURE:

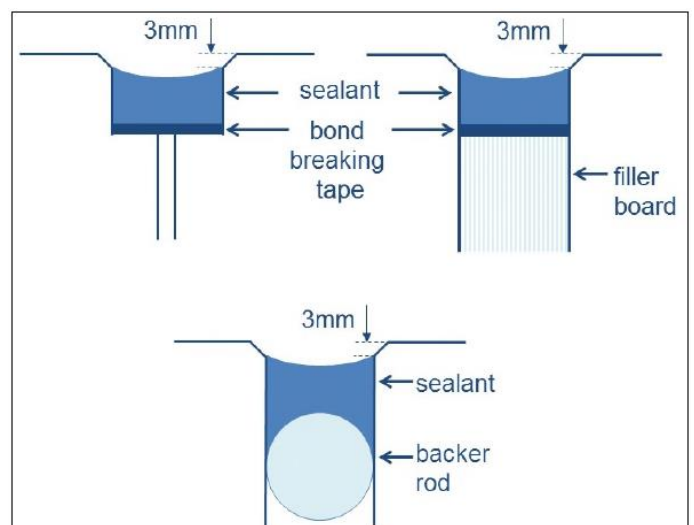
**MasterSeal 470 FR** should be applied when the ambient temperature is between 4°C and 35°C. When the temperature is below 10°C storage at room temperature for several hours will ease mixing and application.

### Mixing MasterSeal 470 FR:

- Mix and use one complete unit at a time. Do not sub-divide.
- **MasterSeal 470 FR** is supplied in separate base & catalyst units.
- Sometimes slight settlement may occur in the catalyst, mix well, before adding to the base component.
- 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 catalyst is completely blended with the base compound.
- Failure to completely disperse catalyst throughout the base compound will result in uncured sealant. Once mixed MasterSeal 470 FR should be used immediately.

### APPLICATION

- **MasterSeal 470 FR** can be easily poured into the joints as by nature the material pourable and self leveling.
- Any masking tape which has been applied should be removed before the sealant cures.
- Mixing and application equipment should be cleaned immediately.



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## COVERAGE

**MasterSeal 470 FR** (length of joint in meters filled per 1 liter 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 Master Builders Solutions representative.

Master Builders Solutions reserves the right to have the true cause of any difficulty determined by accepted test methods

## QUALITY AND CARE

All Master Builders Solutions Products are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health and safety standards of ISO 9001 and Master Builders Solutions ESHQ recommendations.

\* Properties listed are based on laboratory-controlled tests.

® = Registered trademark of the MBCC-Group in many countries

## CONTACT

Should you require any further information, please do not hesitate to contact us:

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