

MasterSeal 930

Dynamic joint waterproofing system for rapid return to service applications Approved by "the Secretary of State" for use with potable water

DESCRIPTION

MasterSeal 930 is a highly elastic pre-formed membrane for waterproofing over joints or cracks in water retaining structures, such as reservoirs and water towers, where a high degree of movement is expected in both vertical and horizontal applications. The material is suitable for use on a number of different substrates including concrete, brick, block and metals.

The system comprises of:

MasterSeal 930 membrane
MasterSeal 933 adhesive (2 parts)

FIELD OF APPLICATION

MasterSeal 930 is used to ensure continuity of waterproofing over joints or cracks in structures such as:

- Water reservoirs
- Water towers
- Tunnels
- Basements
- Filter beds

FEATURES AND BENEFITS

- 3 day return to service at $\geq 14^{\circ}\text{C}$
- 10 day return to service at $\geq 7^{\circ}\text{C}$
- Proven high performance system
- Reg 31 approved for contact with potable water
- Can be applied in damp conditions
- Resistant to UV light, ozone and a wide range of chemicals
- Suitable for horizontal and vertical joint/cracks
- Low adhesive consumption
- No solvent wipe required

TESTS AND APPROVALS

Approved by the Secretary of State for the Environment under Regulation 31(4)(a) for use with potable water.

Specific instructions for use available on request.

APPLICATION METHOD

(a) Surface Preparation

Concrete and masonry surfaces should be mechanically abraded to maximise adhesion. It is essential that all surfaces are clean, free from dust, oil, grease and any other contaminants that may affect the adhesion adversely. All metal surfaces should be abrasive blasted to SA2½.

Prepare an area of substrate around the joint or crack allowing at least 25 mm to either side of the membrane to be applied.

Joints or cracks in concrete, brick or block subject to active water ingress must be prepared and repaired with MasterSeal 590.

Damaged concrete should be repaired with MasterEmaco S 420.

Allow time for the repair products to cure before proceeding to the next stage.

Masking the crack or joint

For cracks or joints of less than 25mm in width apply a 25mm wide masking tape.

For designed joints of more than 25mm in width masking tape is not always required, in which case the MasterSeal 933 adhesive is applied up to the edge of the joint.

In all cases the edges of the de-bonded area should be straight and parallel.

Masking the outer edges of the crack or joint

Apply the masking tape to allow a minimum of 5mm to either side of the MasterSeal 930 membrane.

(b) Mixing

Use a gate paddle or similar in a slow speed drill to mix Part B (hardener) for 30 seconds, before adding to Part A (resin) and mix for a minimum of 2 minutes until a homogenous mixture of a uniform grey colour is achieved. This should happen within four minutes. Do not part mix; the materials have been correctly packaged to the proportions required.

As with all epoxy resins, an exothermic reaction between the two components generates heat. It is essential, therefore to use the mixed material as soon as possible.

(c) Application

Do not apply to frozen substrates or if the ambient temperature is below 5°C or expected to fall below 5°C within 24 hours.

With a clean spreader, suitable trowel or brush, apply MasterSeal 933 adhesive between the masking tapes to a depth of 1-2mm. Remove the central masking tape (if used) immediately on completion.

Centrally position the MasterSeal 930 membrane onto the MasterSeal 933 adhesive pushing it firmly with a spatula, or trowel, to remove trapped air and ensure full contact.

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Run a straight edge down the sides of the membrane to ensure a full bond. Overlap the edges of the membrane with 5mm of MasterSeal 933 adhesive applied at a depth of 1-2 mm to encapsulate the edges of the membrane. Remove the masking tapes and clean off all excess adhesive from surrounding areas.

Where required the MasterSeal 930 membrane can be joined by heat welding. Ensure a minimum overlap of 25mm.

CURING

Full hardening of MasterSeal 933 adhesive is generally achieved after 2 to 3 days dependent upon the ambient temperature.

For information on return to service times for potable water applications see the cure curve data on the table below.

PACKAGING

MasterSeal 930 membrane is available in the following widths and thickness:

100mm (wide) x 1mm (thick) x 20m (length)
150mm (wide) x 1mm (thick) x 20m (length)
200mm (wide) x 1 mm (thick) x 20m (length)
200mm (wide) x 2mm (thick) x 20m (length)

MasterSeal 933 adhesive is a 2-component, 5 kg unit.

COVERAGE

Membrane width	Linear metres per kg
100mm	3.5 - 7.0 metres
150mm	2.6 - 5.2 metres
200mm	1.7 - 3.5 metres
Membrane width	Linear metres per 5 kg pack
100mm	17.5 - 35.0 metres
150mm	13.0 - 26.0 metres
200mm	8.4 - 17.5 metres
Membrane width	Adhesive per 1 metre length of membrane
100mm	0.15 - 0.3 kg
150mm	0.22- 0.45 kg
200mm	0.30 - 0.6 kg

A 5kg pack yields approximately 3.6 litres of adhesive.

Coverage will vary dependent upon substrate profile and condition.

CLEAN UP AND STORAGE

Immediately after use all tools and equipment can be cleaned using a suitable solvent. Please note the solvent should not be used in a confined space or where spillages could come into contact with potable water.

Hardened adhesive can only be removed mechanically. In reservoir applications wipe clean with a clean, lint free, cloth and potable water only. Repeat as necessary.

STORAGE

All materials are to be stored under cover, clear of the ground in dry, frost-free conditions MasterSeal 930 membrane rolls must be stacked on end no more than 4 boxes high.

SHELF LIFE

Rotate stock in order not to exceed the shelf life of 12 months for adhesive and 24 months for membrane.

HANDLING AND TRANSPORT

Usual preventive measures for the handling of chemical products should be observed when using this product, for example do not eat, smoke or drink while working and wash hands when taking a break or when the job is completed.

Specific safety information referring the handling and transport of this product can be found in the Material Safety Data Sheet. For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

Disposal of product and its container should be carried out according to the local legislation in force. Responsibility for this lies with the final owner of the product.

CONTACT DETAILS

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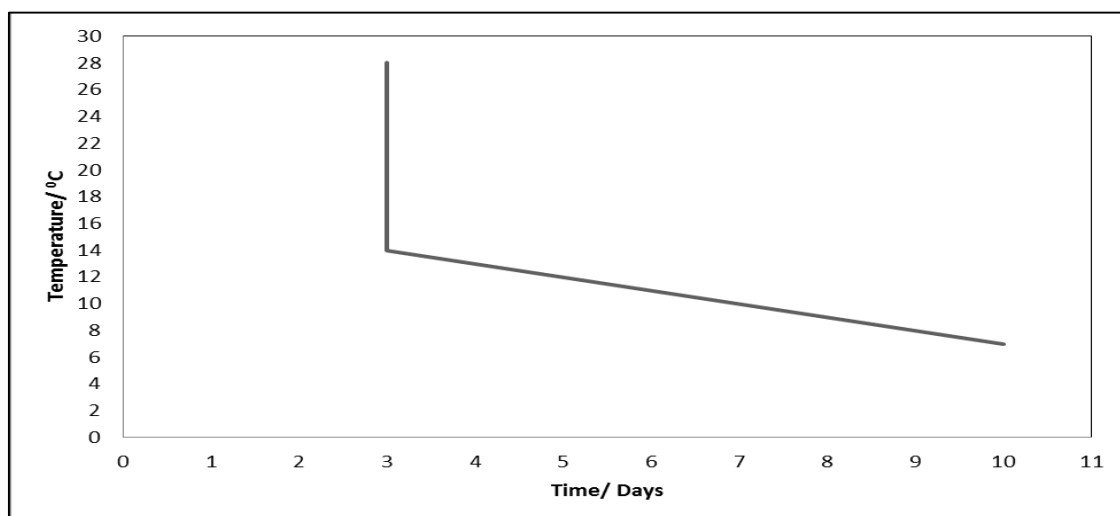
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Product Data		
Property	Unit	Data
Colours – Adhesive & Membrane		Light Grey
MasterSeal 930 Adhesive		
Density of mixed material	kg/m ³	Approx. 1400
Mixing time	minutes	Approx. 2
Working time	minutes	30 (+20°C)
Adhesion to concrete	N/mm ²	≥ 3.0
MasterSeal 930 Membrane		
Elongation at break	%	400 (1 mm thickness)
		500 (2 mm thickness)
Tear resistance	N	24.0 (1 mm thickness)
		40.0 (2 mm thickness)

MasterSeal 930 Return to Service Cure Curve



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Health and Safety

*For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapour until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

Solvent Based Products

Use in well ventilated areas; avoid inhaling. Suitable respiratory equipment may be needed, eg when spraying. Can cause skin, eye irritation. Wear protective eye shields and gloves during use. Do not smoke or allow sparks or naked lights when stored or in use.

Resin Products

Can cause irritation, dermatitis or allergic reaction. Use protective equipment particularly for skin and eyes. Use only in well ventilated areas.

Spillage

Chemical products can cause damage; clean spillage immediately.

DISCLAIMER

“BASF plc, Construction Chemicals” (the Company) endeavours to ensure that advice and information given in Product Data Sheets, Method Statements and Material Safety Data Sheets (all known as Product Literature) is accurate and correct. However, the Company has no control over the selection of its products for particular applications. It is important that any prospective customer, user or specifier, satisfies him/her-self that the product is suitable for the specific application. In this process, due regard should be taken of the nature and composition of the background/base and the ambient conditions both at the time of laying/applying/installing the material and when the completed work is to be brought into use.

Accordingly, no liability will be accepted by the Company for the selection, by others, of a product, which is inappropriate to a particular application.

Products are sold subject to the Company's standard conditions of sale and all customers, users and specifiers, should ensure that they examine the Company's latest Product Literature.