

THORO[®] FLEX 200

Dynamic Joint Waterproofing System DWI Approved for Use with Potable Water

Description of Product

THORO[®] FLEX 200 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 :

THORO[®] FLEX 200 MEMBRANE
THORO[®] FLEX 200 ADHESIVE (2 parts)

Fields of Application

THORO[®] FLEX 200 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

- Proven high-performance system
- DWI 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

Test and approvals

Approved by the Water Byelaws Scheme – potable water, WFMD Listing No. 9508527

Approved by the Secretary of State for the Environment under Regulation 25(1)(a) for use with potable water.

Specific instructions for use available on request.

Colours

THORO[®] FLEX 200 MEMBRANE and THORO[®] FLEX 200 ADHESIVE in light grey.

Typical Properties (a)/ Technical Data

THORO[®] FLEX 200 MEMBRANE	
Density, kg/m ³	1700
Tensile Strength (BS 2782: Pt. 3) Method 320A: 1976 (1986)), N/mm ²	8.7
Water vapour permeability (ASTM E96), g/m ² /24h	0.69
Weather resistance (SIA 280), 10,000 hours	No deterioration
Elongation at break (BS 2782: Pt3: Method 320A: 1976 (1986)), % minimum	
1mm thickness	400
2mm thickness	500
Tear resistance	
1mm thickness	24 N
2mm thickness	40 N
THORO[®] FLEX 200 ADHESIVE	
Density, kg/m ³	1400
Pot life, min	30
Adhesion to concrete (DIN 53232), N/mm ² minimum	3

(a) Typical data at 20°C

Application Procedure

Substrate 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 THORO[®] WATERPLUG.



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Damaged concrete should be repaired with THORO® STRUCTURITE.

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 THOROFLEX 200 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 THOROFLEX 200 MEMBRANE

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.

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 THORO® FLEX 200 ADHESIVE between the masking tapes to a depth of 1- 2mm. Remove the central masking tape (if used) immediately on completion.

Centrally position the THORO® FLEX 200 Membrane onto the THORO® FLEX 200 ADHESIVE pushing it firmly with a spatula, or trowel, to remove trapped air and ensure full contact.

Run a straight edge down the sides of the membrane to ensure a full bond. Overlap the edges of the membrane with 5mm of THOROFLEX 200 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 THOROFLEX 200 MEMBRANE can be joined by heat welding. Ensure a minimum overlap of 25mm.

Curing

Full hardening of THORO® FLEX 200 ADHESIVE is generally achieved after 2 to 3 days dependent upon the ambient temperature.

Coverage and yield

Membrane width, mm	<i>Linear metres per kg</i>
100	3.5 - 7.0
200	1.7 - 3.5
Membrane width, mm	<i>Linear metres per 5 kg pack</i>
100	17.5 - 35.0
200	8.4 - 17.5

A 5 kg pack yields approximately 3.6 litres of adhesive.

Coverage will vary dependent upon substrate profile and condition.

Clean up and spillages

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.

Packaging

THORO® FLEX 200 MEMBRANE is available the following widths and thickness:

100mm (wide) x 1mm (thick) x 20m (length)
200 mm (wide) x 1 mm (thick) x 20m (length)
200mm (wide) x 2mm (thick) x 15m (length)

THORO® FLEX 200 ADHESIVE is a 2-component 5 kg unit.

Storage

All materials are to be stored under cover, clear of the ground in dry, frost-free conditions. THORO® FLEX 200 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.

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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.

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:

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