


EPO-KEM PRODUCT DATA SHEET

EPOFLEX 1000

Two component, elastomeric waterproof membrane (revised 9-7-01)

DESCRIPTION	<p>EPOFLEX 1000 is a two component modified bituminous emulsion containing neoprene rubber and a catalyst. EPOFLEX 1000 is formulated to be highly elastic, waterproof and have very short curing times. EPOFLEX 1000 is applied with special spray equipment which allows it to cure almost instantly to form a continuous waterproof membrane.</p>																																		
FEATURES	<p>When mixed, applied and cured correctly, EPOFLEX 1000 has the following features:</p> <ul style="list-style-type: none"> • Highly and permanently elastic • Short curing time • Crack bridging • Water tight • Seamless • Withstands continuous thermal cycling • Installation time very short • Resistant to alkaline conditions • Retains mechanical properties at temps from -20°C to +80°C and short incidental loads with even higher temps e.g. during application of hot-mix asphalt. 																																		
USES	<p>EPOFLEX 1000 is a liquid spray applied waterproof membrane with some unique physical properties. It has highly elastic properties that allow it to stretch and maintain cover to cracks and joints. EPOFLEX 1000 has an elongation of more than 100% and a memory of 95%. EPOFLEX 1000 is suitable for coating reservoirs, waste and water treatment areas, tunnels, tanks, parking decks, bridges, basins, silos, aqueducts and pipelines for example. Due to its' short curing time it is easy to apply high builds on walls, ceilings and other vertical surfaces without difficulty.</p>																																		
FINISH	<p>Black in colour. Smooth, silk-glossy appearance when cured.</p>																																		
THICKNESS	<p>Minimum of 3mm and any greater thickness. An optimum thickness is determined by design considerations which include the profile of the substrate and the crack bridging ability and ultimate elongation required. Generally, the thickness of EPOFLEX 1000 and the speed of movement (expansion & contraction) will both effect its' ultimate elongation and ability to bridge cracks.</p>																																		
TYPICAL CURED PROPERTIES (measured at 20°C)	<table border="0"> <tr> <td>Specific Gravity</td> <td>:</td> <td>ca. 1.1</td> </tr> <tr> <td>Appearance</td> <td>:</td> <td>coloured, smooth glossy surface</td> </tr> <tr> <td>Recovery from 350% elongation:</td> <td>95% ASTM D412</td> <td></td> </tr> <tr> <td>Ultimate elongation</td> <td>:</td> <td>ca. 1000% @ +20°C ASTM D412 ca. 500% @ -20°C</td> </tr> <tr> <td>Hardness</td> <td>:</td> <td>ca. 25 Shore A</td> </tr> <tr> <td>Tensile Strength</td> <td>ASTM D 412</td> <td>>35 MPa</td> </tr> <tr> <td>Bond Strength</td> <td>(concrete)</td> <td>>1.5 N/mm²</td> </tr> <tr> <td>Tear Strength</td> <td>ASTM C835</td> <td>ca. 2.6 kN/m</td> </tr> <tr> <td>Flashpoint</td> <td>:</td> <td>>200°C</td> </tr> <tr> <td>Water vapour permeability</td> <td>:</td> <td>Nil ASTM E96 procedure E</td> </tr> <tr> <td>Toxicity test (water potability)</td> <td>:</td> <td>Passed AS 4020</td> </tr> </table> <p><i>Unless otherwise stated, all values are applicable at 20°C.</i></p>		Specific Gravity	:	ca. 1.1	Appearance	:	coloured, smooth glossy surface	Recovery from 350% elongation:	95% ASTM D412		Ultimate elongation	:	ca. 1000% @ +20°C ASTM D412 ca. 500% @ -20°C	Hardness	:	ca. 25 Shore A	Tensile Strength	ASTM D 412	>35 MPa	Bond Strength	(concrete)	>1.5 N/mm ²	Tear Strength	ASTM C835	ca. 2.6 kN/m	Flashpoint	:	>200°C	Water vapour permeability	:	Nil ASTM E96 procedure E	Toxicity test (water potability)	:	Passed AS 4020
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CHEMICAL RESISTANCE	<p>EPOFLEX 1000 has good resistance to dilute acids and alkalis, water, salt water and waste water. It has excellent hydrolysis resistance.</p>																																		

Supplier:

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BASES (substructures)	<p>CONCRETE: Must be clean, dry, free from grease and be aged for a minimum of 2 days.</p> <p>Sand/cement screeds must adhere firmly to the substrate.</p> <p>Wood and hot-mix asphalt bases must be free from grease, clean and dry.</p> <p>This information is not intended to be exhaustive, but bases must be designed with these requirements included. Other design considerations are drainage, edge and joint detail. EPO-KEM document “SPECIAL CONDITIONS FOR FLOOR SUBSTRUCTURES” should also be consulted.</p>
INSTALLATION	<p>SURFACE PREPARATION: Check new base is constructed to minimum requirements as above. Base should be clean and free from contamination. Always carry out an adhesion test before proceeding with installation. Old concrete should be prepared to remove cement laitance and any contamination. Hot-mix asphalt must be aged for 7 days minimum and low pressure dust blasted to expose the mineral aggregate.</p> <p>REPAIRS: An expert must do any repairs needed on a concrete base.</p> <p>APPLICATION: EPOFLEX 1000 must be installed by a competent specialist contractor approved by EPO-KEM. EPOFLEX 1000 can only be applied with plural component hydraulic pump requiring a 15 amp electrical supply. The catalyst is injected at the spray tip. The material is extremely reactive.</p> <p>All perimeter and other upturn joints are to be thinly trowelled using a joint sealing material.</p> <p>The cured membrane should be protected from damage during back-filling with a geotextile membrane and/or a cement sheet.</p>
DILUTION	None permitted.
COVERAGE	EPOFLEX 1000 1.1 kg per mm thickness per m²
CURING	Full cure will depend on the ambient temperature and relative humidity of the prevailing conditions. Full cure is obtained after 24 hours in most conditions.
SAFETY	When mixing and applying any of the above-mentioned products, provide adequate ventilation. Users should avoid spillages and contact with skin or eyes. An MSDS (material safety data sheet) is available for each component and should be consulted before use. Clean up of both tools and skin is possible with warm soapy water prior to the product curing.

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