


# EPO-KEM PRODUCT DATA SHEET

## EPOFLEX 80

Seamless, crack bridging, elastic, waterproof membrane

(revised 9-7-01)

<b>DESCRIPTION</b>	<p><b>EPOFLEX 80</b> is a two component polyurethane material based on low viscosity, solvent-free branched polyol and aromatic poly-isocyanates.  <b>EPOFLEX 80</b> is solvent free, formulated to be permanently elastic and has extremely low shrinkage.</p>																																																																			
<b>FEATURES</b>	<p>When mixed, applied and cured correctly, <b>EPOFLEX 80</b> has the following features:</p> <ul style="list-style-type: none"> <li>• Permanently elastic</li> <li>• Shock resistant</li> <li>• Crack bridging</li> <li>• Water tight</li> <li>• Seamless</li> <li>• Tough and resistant to mechanical damage</li> <li>• Resistant to most common chemicals</li> <li>• Fatigue resistant</li> </ul>	 <p><i>Application of EPOFLEX 80 on a car park deck prior to a wearing layer of hot mix asphalt</i></p>																																																																		
<b>USES</b>	<p><b>EPOFLEX 80</b> is a liquid applied waterproof membrane with an excellent adhesion to concrete substrates. It has very good crack bridging capabilities, is water proof, water vapour proof and oxygen impermeable.  <b>EPOFLEX 80</b> is a wear resistant and corrosion resistant coating with excellent mechanical properties. It protects steel and aluminium against corrosion and it protects concrete against penetration of moisture and chloride.</p>																																																																			
<b>FINISH</b>	<p>Grey in colour. Smooth, glossy appearance when cured.          Custom colours available on request.  <b>EPOFLEX 80</b> discolours due to UV radiation. To achieve colour stability top-coat with <b>EPO-KEM COATING PU/SH</b> or <b>EPO-KEM COATING PU/S</b>.</p>																																																																			
<b>THICKNESS</b>	<p>Minimum of 0.5mm up to a maximum of 6mm. 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 <b>EPOFLEX 80</b> and the speed of movement (expansion &amp; contraction) will both effect its' ultimate elongation and ability to bridge cracks.</p>																																																																			
<b>TYPICAL CURED PROPERTIES</b> (measured at 20°C)	<table border="0"> <tr><td>Specific Gravity</td><td>:</td><td>ca. 1.4 – 1.5</td></tr> <tr><td>Solids content</td><td>:</td><td>100%</td></tr> <tr><td>Flashpoint</td><td>:</td><td>&gt;200°C</td></tr> <tr><td>Appearance</td><td>:</td><td>coloured, smooth glossy surface</td></tr> <tr><td>Shrinkage after curing</td><td>:</td><td>negligible</td></tr> <tr><td>Water resistance</td><td>:</td><td>very good</td></tr> <tr><td>Chemical &amp; solvent resistance</td><td>:</td><td>very good</td></tr> <tr><td>Ultimate elongation</td><td>:</td><td>ca. 60% @ +20°C ca. 5% @ -20°C</td></tr> <tr><td>E-modulus</td><td>:</td><td>ca. 125 MPa</td></tr> <tr><td>Hardness</td><td>:</td><td>ca. 80 Shore A</td></tr> <tr><td>Tensile Strength ASTM D 412</td><td>:</td><td>12 – 14 N/mm<sup>2</sup></td></tr> <tr><td>Bond Strength (steel)</td><td>:</td><td>&gt;6.5 N/mm<sup>2</sup></td></tr> <tr><td>Impact Resistance</td><td>:</td><td>excellent</td></tr> <tr><td>Hydrolysis resistance</td><td>:</td><td>&lt;2%</td></tr> <tr><td>Corrosion resistance</td><td>:</td><td>4000 cycles</td></tr> <tr><td>Salt water resistance</td><td>:</td><td>very good</td></tr> <tr><td>Thermal Conductivity</td><td>:</td><td>0.16 W/m.K</td></tr> <tr><td>Heat transmission coefficient</td><td>:</td><td>20 W/m<sup>2</sup>K</td></tr> <tr><td>Tear strength</td><td>:</td><td>ca. 45 kN/m</td></tr> <tr><td>Crack bridging ability</td><td>:</td><td>at a speed of 10mm/min the crack begins at 5.7mm and ends at 7.7mm</td></tr> <tr><td>Oxygen diffusion (layer thickness 1.1mm)</td><td>:</td><td>diffusion coefficient 2.6 Mu-value 7.8x10<sup>6</sup> diffusion resistance 8130m</td></tr> <tr><td>Linear coefficient of expansion</td><td>:</td><td>chloride diffusion, transported load 0.002 C 120x10<sup>-6</sup>K<sup>-1</sup></td></tr> </table>		Specific Gravity	:	ca. 1.4 – 1.5	Solids content	:	100%	Flashpoint	:	>200°C	Appearance	:	coloured, smooth glossy surface	Shrinkage after curing	:	negligible	Water resistance	:	very good	Chemical & solvent resistance	:	very good	Ultimate elongation	:	ca. 60% @ +20°C ca. 5% @ -20°C	E-modulus	:	ca. 125 MPa	Hardness	:	ca. 80 Shore A	Tensile Strength ASTM D 412	:	12 – 14 N/mm <sup>2</sup>	Bond Strength (steel)	:	>6.5 N/mm <sup>2</sup>	Impact Resistance	:	excellent	Hydrolysis resistance	:	<2%	Corrosion resistance	:	4000 cycles	Salt water resistance	:	very good	Thermal Conductivity	:	0.16 W/m.K	Heat transmission coefficient	:	20 W/m <sup>2</sup> K	Tear strength	:	ca. 45 kN/m	Crack bridging ability	:	at a speed of 10mm/min the crack begins at 5.7mm and ends at 7.7mm	Oxygen diffusion (layer thickness 1.1mm)	:	diffusion coefficient 2.6 Mu-value 7.8x10 <sup>6</sup> diffusion resistance 8130m	Linear coefficient of expansion	:	chloride diffusion, transported load 0.002 C 120x10 <sup>-6</sup> K <sup>-1</sup>
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**Supplier:**

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## EPO-KEM PRODUCT DATA SHEET

<b>TOOLS</b>	Tools can be cleaned with <i>EPO-KEM CLEANER</i> provided the material has not cured.
<b>SAFETY</b>	When mixing and applying any of the above-mentioned products, provide adequate ventilation. Users should avoid spillages and contact with skin or eyes. An <b>MSDS</b> (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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