

Joint Sealant

Technical Data Sheet

DESCRIPTION	Megapoxy Hotmelt sealant is an Australian developed and manufactured product. Megapoxy Hotmelt has been used successfully in Australia, Malaysia and Singapore since 1977 for sealing expansion joints in bridges, roads, car parks and swimming pools.	
FIELD EXPERIENCE SHOWS THAT	Megapoxy Hotmelt, withstands very high extensions without de-bonding or tearing, both at low temperatures and ambient temperatures under wet conditions. Megapoxy Hotmelt has a high degree of elastic resilience and resistance to flow, effectively resists "smearing out" by traffic and intrusion of stones or other solid substances into the joint. Megapoxy Hotmelt joint sealant performance is effective over the whole pavement and deck temperature range encountered in Australia, that is: -15°C to 75°C. Weathering over several years causes the formation of alligator skin pattern in the surface, but no cracks develop deep in the joint sealant mass and the adhesion remains excellent. Megapoxy Hotmelt exceeds the requirements of R.T.A. specification 899.	
PROPERTIES	Specific Gravity at 25°C	1.3
	Resilience (ASTM D-3407 - 75T)	70% at 25°C 85% at 70°C
	Extension between concrete blocks (ASTM D 4308 - 75T)	500% at 25°C 150% at 0°C
	Change in ring and ball softening point after heating at 180°C for 3 hours.	No change

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APPLICATION	<p>Joint Design:</p> <p>Joint Movement: All joints where repeated movement occurs should be designed and spaced so that the total movement in tension or compression does not exceed 25% of the width of the joint at the time of sealing.</p> <p>For example, if the movement expected is 10 millimetres followed by 2 millimetres compression, then the design width of joint should be 40 millimetres.</p> <p>Joint Depth:</p> <p>In order to ensure adequate area bond to the joint faces, the minimum depth of sealant should be 12 millimetres.</p> <p>Joint Configuration:</p> <p>The shape of the sealant has a very large effect on the strain imposed on the bond to joint faces. Where regular movement is expected, the joint should be designed with a width to depth ratio of 2 : 1</p> <p>Back up Materials and Bond Breakers:</p> <p>The most suitable back-up material is foam polyethylene. A strip, slightly wider than the joint, is cut, introduced and held in place within the joint by compression. When the foam is positioned at the correct design depth, use paint scraper or similar tool to further depress the edges of foam in contact with the joint faces to produce a convex shape will produce concave base on the sealant, maximising the area of adhesion to joint faces and minimising cross section of sealant in the middle of the joint. Masking tape is then carefully placed to cover the backing to act as a bond breaker.</p>
SITE INSTRUCTIONS	<p>Joint Preparation: Joints must be dry and completely clean. Dust, old sealing compound, laitence and loose materials must be removed by wire brushing or grit blasting.</p> <p>Metal surfaces must be free from scale and rust.</p> <p>Priming: Priming surfaces in all materials with the exception of asphaltic concrete must be primed using Megapoxy H. Megapoxy H is applied by brush or sprayed on the joint surfaces to ensure complete coverage. The recommended rate of application is 0.2 litre of Megapoxy H per square metre. Allow minimum 1 hour drying time before casting Megapoxy Hotmelt.</p>
PREPARATION OF MEGAPOXY HOTMELT	<p>Preheat and Melt the Megapoxy Hotmelt in a tin or cast iron pot over a gas burner.</p> <p>Stir and continue heating until all material has melted. Stir occasionally to prevent the "hot spots". When all Megapoxy Hotmelt melts and is of fluid consistency the sealant is ready for immediate pouring. The temperature of the molten Megapoxy Hotmelt should be approximately 175°C. (please note all safety precautions and relevant safety procedures).</p>
POURING MEGAPOXY HOTMELT	<p>Pour the molten sealant into the prepared and primed joint cavity and allow to cool.</p> <p>Successive pours will amalgamate with earlier pours provided that dry conditions are maintained during the sealant application and freshly poured Megapoxy Hotmelt is adequately hot. When the joint is full of Megapoxy Hotmelt, allow to cool for approximately 15 minutes before opening to traffic. Do not sprinkle the joint with sand or cover with plastic or paper.</p>

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NEW TO OLD CONCRETE ADHESIVE	Mixing Ratio by volume 3 Parts A to 1 Part B
	Mix Megapoxy H as detailed above and apply by brush, roller or airless spray to prepared old concrete at the rate of 1 to 1.5 litres per square metre. Place new concrete within 15 minutes of applying Megapoxy H to ensure good bonding. For vertical and overhead rendering use Megapoxy HT in place of Megapoxy H.
CLEANING	To keep mixing implements and working tools clean, use Megapoxy Thinners. Use disposable rubber gloves to protect hands and maintain proper industrial hygiene. For further details refer to the Megapoxy H Safety Data Sheets.
PACKAGING	Megapoxy HT is available in 4lt & 20lt kits. Product should be stored in cool dry store.
TECHNICAL SERVICE	All purchasers of Megapoxy Products, are encouraged to avail themselves of our Technical Service for our Megapoxy Products. The information in this Bulletin is correct at time of publication, however continual research and development is being carried out and specs may change without notice.