


TECHNICAL DATA SHEET

DOLPHIN EPOXY STEEL		
Revision Date: 10 th Mar 2023	Revision No 00	Number of Pages: 2

PRODUCT DESCRIPTION

DOLPHIN POWERBOND EPOXY STEEL is an advanced, heavy duty two part adhesive that creates a high strength reliable bond in 4 minutes. Highly resistant to chemicals, moisture and high temperatures up to 120 C.

TECHNICAL PROPERTIES																																																																													
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Properties</th> <th style="width: 25%;">Component</th> <th style="width: 15%;">Colour</th> <th style="width: 35%;">Specifications</th> </tr> </thead> <tbody> <tr> <td>Chemical Base</td> <td>Part – A Resin</td> <td>Black</td> <td>Paste</td> </tr> <tr> <td>Chemical Base</td> <td>Part – B Accelerator</td> <td>White</td> <td>Paste</td> </tr> <tr> <td>Cure Type</td> <td></td> <td></td> <td>Resin + Accelerator (1: 1 Ratio) & mix.</td> </tr> <tr> <td colspan="4" style="text-align: center;">Part A + Part B after Mixing @ 25°C, 50% RH</td> </tr> <tr> <th>Properties</th> <th>Test Method</th> <th>Unit</th> <th>Specification</th> </tr> <tr> <td>Mixing Ratio (Part A + Part B)</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> <td>1:1 (by weight)</td> </tr> <tr> <td>Color</td> <td style="text-align: center;">-</td> <td></td> <td>Grey</td> </tr> <tr> <td>Consistency</td> <td style="text-align: center;">-</td> <td></td> <td>Homogeneous paste</td> </tr> <tr> <td>Density</td> <td></td> <td>g/ml</td> <td>1.9 ± 0.02</td> </tr> <tr> <td>Gelling Time</td> <td>Lab Test</td> <td>minutes</td> <td>4 - 5</td> </tr> <tr> <td>Tack Free Time</td> <td>Lab Test</td> <td>minutes</td> <td>Approx. 8 -10</td> </tr> <tr> <td colspan="4" style="text-align: center;">As Cured Sample – 24 Hours @ 25°C, 50% RH</td> </tr> <tr> <td>Hardness (Shore D)</td> <td>ASTM D220</td> <td>Points</td> <td>80 ± 5</td> </tr> <tr> <td>Lap Shear Strength</td> <td>ASTM D1002</td> <td>Kg/ cm2</td> <td>90 kg /cm²</td> </tr> <tr> <td>Compression Strength</td> <td>Lab Test</td> <td>Kg/ cm2</td> <td>900 kg / cm²</td> </tr> <tr> <td>Non-Volatile content</td> <td></td> <td>%</td> <td>100</td> </tr> <tr> <td>Service Temperature</td> <td style="text-align: center;">-</td> <td>°C</td> <td>10 to +120</td> </tr> <tr> <td>Application Temperature</td> <td style="text-align: center;">-</td> <td>°C</td> <td>10 to 45</td> </tr> </tbody> </table> <p><i>Note:</i> * Curing time (Gelling Time & Tack Free Time) may vary depending on climatic condition during application. * Information on this data sheet is subject to change without prior notice and should not be used for writing specifications</p>	Properties	Component	Colour	Specifications	Chemical Base	Part – A Resin	Black	Paste	Chemical Base	Part – B Accelerator	White	Paste	Cure Type			Resin + Accelerator (1: 1 Ratio) & mix.	Part A + Part B after Mixing @ 25°C, 50% RH				Properties	Test Method	Unit	Specification	Mixing Ratio (Part A + Part B)	-	-	1:1 (by weight)	Color	-		Grey	Consistency	-		Homogeneous paste	Density		g/ml	1.9 ± 0.02	Gelling Time	Lab Test	minutes	4 - 5	Tack Free Time	Lab Test	minutes	Approx. 8 -10	As Cured Sample – 24 Hours @ 25°C, 50% RH				Hardness (Shore D)	ASTM D220	Points	80 ± 5	Lap Shear Strength	ASTM D1002	Kg/ cm2	90 kg /cm ²	Compression Strength	Lab Test	Kg/ cm2	900 kg / cm ²	Non-Volatile content		%	100	Service Temperature	-	°C	10 to +120	Application Temperature	-	°C	10 to 45
Properties	Component	Colour	Specifications																																																																										
Chemical Base	Part – A Resin	Black	Paste																																																																										
Chemical Base	Part – B Accelerator	White	Paste																																																																										
Cure Type			Resin + Accelerator (1: 1 Ratio) & mix.																																																																										
Part A + Part B after Mixing @ 25°C, 50% RH																																																																													
Properties	Test Method	Unit	Specification																																																																										
Mixing Ratio (Part A + Part B)	-	-	1:1 (by weight)																																																																										
Color	-		Grey																																																																										
Consistency	-		Homogeneous paste																																																																										
Density		g/ml	1.9 ± 0.02																																																																										
Gelling Time	Lab Test	minutes	4 - 5																																																																										
Tack Free Time	Lab Test	minutes	Approx. 8 -10																																																																										
As Cured Sample – 24 Hours @ 25°C, 50% RH																																																																													
Hardness (Shore D)	ASTM D220	Points	80 ± 5																																																																										
Lap Shear Strength	ASTM D1002	Kg/ cm2	90 kg /cm ²																																																																										
Compression Strength	Lab Test	Kg/ cm2	900 kg / cm ²																																																																										
Non-Volatile content		%	100																																																																										
Service Temperature	-	°C	10 to +120																																																																										
Application Temperature	-	°C	10 to 45																																																																										

TYPICAL USES	KEY FEATURES
--------------	--------------

AMI	TDS	info@muqarram.com	Page 1 of 2	www.muqarram.com
-----	-----	-------------------	-------------	------------------

<ul style="list-style-type: none"> • Interior & exterior application • Excellent bonding of metal to metal • Bonding with metal to wood, wood to wood. • Good bonding in broken ceramic cups, glass • Construction application • Excellent engineering adhesive in automobile industry 	<ul style="list-style-type: none"> • 100% Non-volatile product • Excellent Adhesion • No Shrinkage • Non-corrosive. • Non-stain. • Printability • DIY Product.
--	---

COLOR	DOLPHIN Epoxy Steel, Resin and Accelerator after homogenously mixing, mixture gets Grey colour.
PACKAGING	DOLPHIN Epoxy steel in tubes is available in blister pack with 57 g (2 Oz) Resin tube and Accelerator tube 57 g (2 Oz).
SURFACE PREPARATION	The substrate areas that will be in contact with adhesive must be clean, dry and free of all loose materials, dust, dirt, rust, oil and other contaminants. If the surface to be applied is smooth, roughen with sand – paper for better adhesion
TOOLING AND FINISHING	Immediately tool adhesive after application and within the gelling time.
APPLICATION INSTRUCTION	Cut nozzle. Unscrew nozzle on tubes. Can easily be extruded with hand pressure at temperatures between +10°C and 45°C. Apply the mixed mass on the surface to be bonded as soon as possible. If necessary, apply the pressure or clamps to hold the bonding
CLEANUP AND REMOVAL	Uncured adhesive can be removed by wiping but cured adhesive can only be removed mechanically or with nail polish remover (Acetone).
ADVANTAGE	Water (Latex) based paint paintable after 24 hours of curing. Additionally, we can do drilling. We can use this product for bonding, fixing, filling, repairing, sealing.
STORAGE AND SHELF LIFE	When stored in original unopened container at or below 77°F (25°C) in dry warehouse conditions, DOLPHIN Epoxy Steel in tubes has a shelf life of 12 months from manufacturing date. Both tubes should always be kept sealed when not in use. Don't interchange caps in between both tubes.
HANDLING PRECAUTIONS	In case of contact with skin it may cause irritation or sensitization of skin. wash hands with plenty of water and soap. In case of contact with eyes, wash with plenty of water and consult physician immediately. If swallowed, it may be harmful. Keep away from children. While grinding, sanding or drilling wear protective eyeglasses and dust masks. The cured mass of epoxy is generally nontoxic.

Keep out of reach of children • Keep container tightly closed • For industrial & professional use.

The information and data contained herein is believed to be accurate and reliable; however, it is the user's responsibility to determine suitability of use. Since the supplier cannot know all the uses, or the conditions of use to which these products may be exposed, no warranties concerning the fitness or suitability for a particular use or purpose are made. AMI reserves the right to change the properties of its products without notice.