

**ThistleBond**

www.thistlebond.com

**TECHNICAL DATA SHEET****Collision Kit Resin & Hardener**

**ThistleBond 'Collision Kit Resin & Hardener'** is a high performance, solvent free system designed for use as an emergency repair system for marine use.

**ThistleBond 'Collision Kit Resin & Hardener'** consists of a unique blend of epoxy resin combined with polyamino amine adducts, which have been specifically selected to provide a rapid curing repair with the capability to cure underwater.

**ThistleBond 'Collision Kit Resin & Hardener'** is simple and easy to use and when used as an in-situ repair it gives the vessel the capability to be moved to a dry dock for a more effective repair.

**ThistleBond 'Collision Kit Resin & Hardener'** is supplied as a kit contained in special watertight packaging to meet accepted marine industry standards.

**Before proceeding please read the following information carefully to ensure that the correct proper application procedure is fully understood.**

**SURFACE PREPARATION**

All surfaces must be free from oil, grease and loose material.

Surfaces should be thoroughly abraded with any resulting debris removed. If applied to a gel coated area, care should be taken to avoid exposing underlying fibres.

**Note:** Extend the cleaned and abraded area onto undamaged areas to obtain the best possible adhesion.

**MIXING**

**ThistleBond 'Collision Kit Resin & Hardener'** is a two component material consisting of a resin component and hardener component which must be mixed together prior to use. Measure 1 volume of Resin and 1 volume hardener component onto a clean mixing board or other suitable surface. The two components should be thoroughly mixed until completely streak free.

The mixed material should be used within 4-5 minutes of mixing at 20°C (68°F). This time will be reduced at higher temperatures and extended at lower temperatures.

**APPLICATION**

Application should take place within 45 minutes of preparing the surface.

**Application With PU Mat**

Cut the mat to required size ensuring a minimum 100 mm (4") overlap onto undamaged surround.

Spread 50% of the mix onto the fibrous side of the PU mat ensuring it is worked well into the fibres, the other 50% should be applied to the damaged area.

The PU Mat should be immediately pressed securely onto the prepared area until full contact is achieved. Any excess material at the edges should be smoothed with a gloved finger to complete the repair.

**Application With Reinforcing Tape**

The Reinforcing Tape should be cut to the length required making sure there is sufficient length to wrap 3 times. Apply approximately 2/3 of mixed material to the substrate, remainder spread onto tape.

The tape should be applied coated side down onto damaged area ensuring the tape is wrapped tightly allowing the mix to push through the tape. Cut off surplus tape.

Smooth the edges of the repair with gloved finger to complete the repair.

All equipment must be cleaned IMMEDIATELY after use with **ThistleBond 'Cleaner'**.

**PHYSICAL CONSTANTS**

<b>Mixing Ratio</b>	Resin	Hardener
	1	1 By weight
	1	1 By Volume
<b>Appearance</b>	Resin	White Thixotropic Paste
	Hardener	Black Thixotropic Paste
<b>Drying &amp; Cure Times at 20°C/68°F</b>	Usable Life	4-5 Mins
	Tack Free	10 mins
	Hard Dry	30 mins
<b>Underwater at 3°C/</b>	Usable life	10 mins
	Tack Free	25 mins
	Hard Dry	40 mins
<b>Volume Solids</b>	100%	
<b>V.O.C.</b>	Nil	
<b>Shelf Life</b>	Use within 5 years or purchase. Store in original sealed containers at temperatures between 5°C (40°F) and 30°C (86°F).	

**PHYSICAL PROPERTIES**

<b>Flexural Strength</b>	500 kg/cm <sup>2</sup> (7100 psi)
ASTM D790	
<b>Compressive Strength</b>	860 kg/cm <sup>2</sup> (1200 psi)
ASTM D695	
<b>Tensile Strength</b>	40 kg/cm <sup>2</sup> (580 psi)
ASTM D1002	GRP
<b>Heat Distortion</b>	47°C (116°F)
ASTM D648	
<b>Hardness (Shore D)</b>	80
ASTM D2246	

**HEALTH AND SAFETY**

As long as normal good practice is observed

**ThistleBond 'Collision Kit Resin & Hardener'** can be safely used.

Protective gloves should be worn.

A fully detailed **Material Safety Data Sheet** is either included with the material or is available on request.

**PACKAGING**

Supplied in 0.200kg packs.

The information provided in this Product Data Sheet is intended as a general guide only and should not be used for specification purposes. The information is given in good faith but we assume no responsibility for the use made of the product or this information because this is outside the control of the company. Users should determine the suitability of the product for their own particular purposes by their own tests. Detailed specifications are available on request from the company.

FOR FURTHER INFORMATION PLEASE CONTACT



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