



RESOLTECH 3350 HP

Hardeners **3356 HP (slow) 3358 HP (fast)**

Low Density Structural Epoxy Adhesive

- **0,7 Density**
- **Rubber toughened for superior impact resistance**
- **Excellent application characteristics**
- **Slow & fast hardeners available**
- **Applicable even in high humidity conditions & low temperatures**



The RESOLTECH 3350 HP epoxy adhesive is a lightweight paste that enables durable lightweight bonding of materials such as PVC, PET & other core materials on composites structures, wood, aluminium or steel.

Resin and hardener are easily mixed and preferably applied with notched spreaders and will not sag even applied on vertical surfaces in thick layers up to 20 mm vertically enabling to make fillet joints. The simple 2:1 mixing ratio by volume or 100:42 by weight is tolerant to small variations & make it applicable with dispensing machines.

The 3350 HP maybe used with the 3356 HP slow (4h) hardener or the 3358 HP fast (20 min) hardener depending on the application temperature and size of the surface to be bonded. The fast hardener enables to release vacuum or sand only hours after the application.

3350 HP system is not sensitive to humidity during the application or the curing and the 3358HP enables fast curing even at low temperatures.

RESOLTECH 3350 HP is easy to sand or to CNC and may be used for strip planking with wood or foam strips. Its fast curing characteristics and ease of sanding enables to also use the 3350 HP/3358 HP as fairing fast cure filler for under waterline applications.

Resin 3350 HP

Hardener 3356 HP & 3358 HP

Low Density Epoxy Adhesive Paste

MIXING RATIO

	By weight
Resin 3350 HP	100
Hardeners	
3356 HP & 3358 HP	42

WARNING:

The mixing ratio must be accurately followed. It is not possible to change the ratio, it would result in lower mechanical properties. The mixture should be thoroughly stirred to ensure full homogeneity. It is important to note that epoxy systems tend to heat up much faster in a pot than as a thin film. It is therefore necessary to only mix the necessary amount usable within the given pot life. Keeping the mixture in flat open containers reduces the risks of exothermic reaction.

APPLICATION

The surface should be clean, dust-free and degreased. Prepare all surfaces by abrading with medium grit paper or other suitable abrasive, remove dust then wipe with acetone, methylethylcetone (MEK) or similar solvents.

Aluminium usually requires a chemical pre-treatment to create the best bond (contact Technical Services).

Ensure that **polyester or vinylester laminates** are fully cured before bonding, then prepare as above. When bonding **epoxy laminates**, the use of a suitable peel ply as the last stage in their manufacture is recommended, otherwise prepare as above. Trials may be required to test peel ply suitability.

For **ferro cement**, etch with 5% solution of hydrochloric acid, wash with fresh water, then dry.

For all **timbers**, sand with abrasive paper across grain. Degrease oily timber with a fast evaporating solvent. For resinous or gummy timber, etch with 2% caustic soda solution, wash off with fresh water and dry.

The adhesive can be applied with a notched trowel, spatula, putty knife or self mixing/dispensing machine in various thicknesses up to 20mm without sagging.

- Assemble and maintain parts in contact during hardening with clamps, vacuum or masking tape.
- Cleaning of the materials should be done before polymerization with acetone, MEK or equivalent.

It is recommended to use **notched spreaders** in order to apply even thicknesses of adhesive on the surface to be bonded.

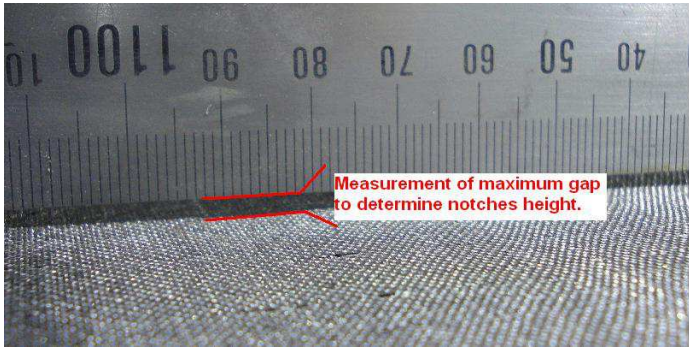
Bonding test have been successfully conducted of PVC foam bonded onto laminates with post curing cycles of 6h @100°C, enabling the use of medium temperature curing prepregs with ths adhesive.

Resin 3350 HP

Hardeners 3356 HP & 3358 HP

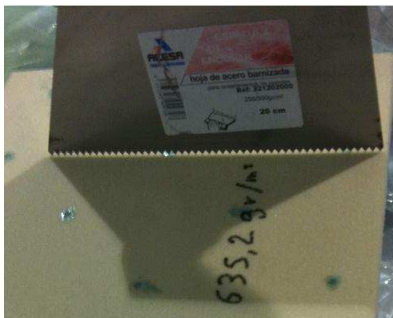
Coverage :

Coverage will be determined by the porosity of the surface and the unevenness of the materials to be bonded. The unevenness of the surface will determine the type and size of notched spreaders:



The height of the notches will be defined by the deepest surface un-evenness (ie : slumps of 3 mm on the surface to be bonded will require 5 mm high notches).

The following examples of notches types and sizes will help guide your choice while indicating the coverage in g/m² on a 110 kg/m³ PVC foam core on test samples :



4 mm wide x 3 mm height notches at a 90° angle : **635 g/m²**



4 mm wide x 3 mm height notches, at a 45° angle : **604 g/m²**



3 mm wide x 3 mm height notches with 2mm flat edge, at a 45° angle: **587 g/m²**

Customers feed-back on average consumption on 50 feet boat hulls show consumptions of 510gr/m² on 70kg/m³ plain PVC foams on series production.

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PHYSICAL CHARACTERISTICS @ 23°C

Visual aspect

3350 HP	:	White paste
3356 HP & 3358 HP	:	Light yellow paste
Mix	:	Off white easy to apply paste

Density

References	3350 HP	3356 HP & 3358 HP	Mix
Density	0,75 ± 0,05	0,60 ± 0,05	0,70 ± 0,05

Viscosity (Brookfield)

References	3350 HP	3356 HP & 3358 HP
Viscosity (mPa.s)	100 000 ± 40 000	150 000 ± 50 000
Mix viscosity (mPa.s)	-	TBD (

REACTIVITY @ 23°C

All measures realized on Trombotech®

Reactivity	3350 HP / 3356 HP	3350 HP / 3358 HP
Gel time on 70 mL	4h ± 30min	20 ± 10 min
Temperature at exothermic peak on 70 mL	<40°C	141°C
Clamp time	TBD	4h

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CURING

Maximum properties	3350 HP / 3356 HP	3350 HP / 3358 HP
@ 20°C	TBD	7 days (6h clamp time)
@ 40°C	TBD	12h (2h clamp time)
@ 60°C	TBD	6h (1h clamp time)

MECHANICAL PROPERTIES

HARDNESS

Hardness Shore D :

TBD

SHEAR STRENGTH

Shear resistance on steel

TBD

GLASS TRANSITION

Glass transition temperature on Kinetech® T_G :

3350 HP / 3358 HP after 10h at 60°C) 56°C

3350 HP / 3356 HP after 10h at 60°C) 46°C

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PACKAGING

Kits available :

- (0.5+0.21)kg
- (5+2.1)kg
- (17+7,14)kg
- ...

TRANSPORT & STORAGE

Shelf life is one year in sealed containers as provided. Keep containers sealed and away from heat and cold preferably between 10°C and 30°C in a well ventilated area.

HEALTH & SAFETY

Although the 3350 HP / 3356 HP & 3358 HP is a recent formulation, it is advised to follow basic rules such as avoiding skin contact and wear masks like with any other epoxy resins. Please read our standard health and safety sheet for more information. In case of eye contamination, wash with water and seek medical advice. Please read the Material Safety Data Sheet prior to using this product.

Nota The data provided in this document is the result of tests and is believed to be accurate. We do not accept any responsibility over the mishandling of these products and our liability is limited strictly to the value of the products we manufacture and supply.



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