

RESOLTECH 3350 HP

Hardeners 3356 HP (slow) 3358 HP (fast)

Low Density Epoxy Adhesive

- **0,7 Density for all core materials bonding**
- **Excellent application characteristics**
- **Slow & fast hardeners available**
- **Room & low temperature curing**
- **Rubber toughened for superior impact resistance**
- **Applicable even in high humidity conditions**



RESOLTECH 3350 HP / 3356 HP or 3358 HP epoxy adhesive is a **lightweight paste** that enables durable lightweight bonding of materials such as PVC 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.

The 3350 HP maybe used with the 3356 HP slow (2h40) 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**.

This system is **not sensitive to humidity** during the application or the curing.

3350 HP / 3356 HP or 3358 HP is **easy to sand** 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 as fairing fast cure filler.

Resin 3350 HP

Hardener 3356 HP & 3358 HP

Low Density Epoxy Adhesive Paste

MIXING RATIO

System	3350 HP / 3356 HP	3350 HP / 3358 HP
Mixing ratio by weight	100 / 42	
Mixing ratio by volume	2 / 1	

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.

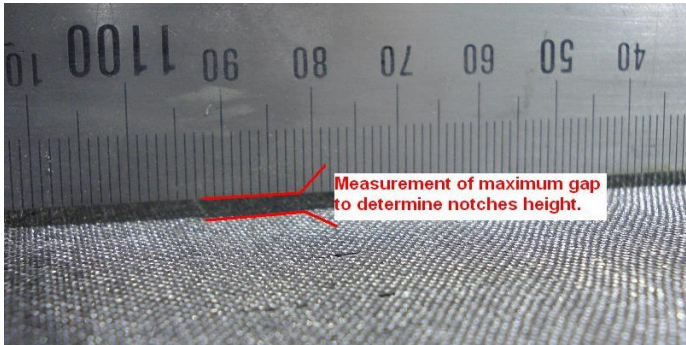
It is recommended to use **notched spreaders** in order to apply even thicknesses of adhesive on the surface to be bonded.

Resin 3350 HP

Hardeners 3356 HP & 3358 HP

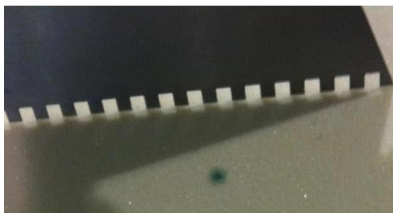
Coverage :

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:

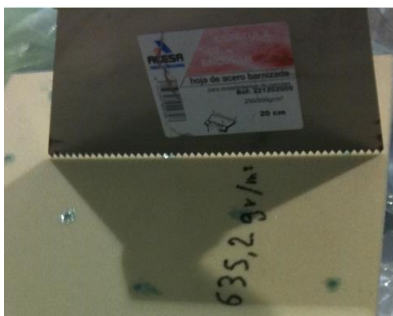


The height of the notches will be defined by the deepest surface unevenness (i.e. slumps of 3 mm on the surface to be bonded will require 5 mm high notches).

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



5 mm wide x 6 mm height notches at a 90° angle : **1368 g/m²**



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**

Resin 3350 HP

Hardeners 3356 HP & 3358 HP

PHYSICAL CHARACTERISTICS

Visual aspect

3350 HP	:	Grey thixotropic paste
3356 HP / 3358 HP	:	Ivory thixotropic paste
Mix	:	Grey paste

Density according to ISO 1675 (± 0.05 tolerance)

References	3350 HP	3356 HP & 3358 HP	Mix
Density	0.73	0.66	0.71

REACTIVITY

Reactivity	3350 HP / 3356 HP	3350 HP / 3358 HP
Gel time on 70mL (4cm thickness)	2h40min	20min
Temperature at exothermic peak on 70mL	29.5°C	141°C

Measurements realized on Trombotech®

CURING

Optimal properties	3350 HP / 3356 HP	3350 HP / 3358 HP
at 20°C	14 days (24h clamp time)	7 days (6h clamp time)
at 40°C	16h (8h clamp time)	12h (2h clamp time)
at 60°C	8h (2h clamp time)	6h (1h clamp time)

MECHANICAL PROPERTIES

Systems	3350 HP / 3356 HP	3350 HP / 3358 HP
Shore Hardness after 14 days at 23°C	69 Shore D	70 Shore D

According to ISO 868

Resin 3350 HP

Hardeners 3356 HP & 3358 HP

Systems	3350 HP / 3356 HP	3350 HP / 3358 HP
T _G after curing 8h at 50°C	42.2°C	45.4°C
T _G after curing 16h at 60°C	45.4°C	49.0°C
T _G after curing 2h at 70°C	39.0°C	41.1°C

T_G measured by Kinetech® (DMA type)

Systems	3350 HP / 3356 HP	3350 HP / 3358 HP
Curing cycles	10h at 50°C	
Shear strength at break on GRP	12.3 MPa	13.7 MPa
Elongation at break on GRP	2.3%	3.0%

According to ISO 4587

PACKAGING

Available kits :

- 0.71 kg : (0.5+0.21) kg
- 1.42 kg : (1+0.42) kg
- 7.1 kg : (5+2.1) kg
- 24.14 kg : (17+7.14) kg
- ...

TRANSPORT & STORAGE

Keep containers sealed and away from heat and cold preferably between 10°C and 30°C in a well ventilated area. Our products are guaranteed in their original packaging (check expiry date stated on the label).

HEALTH & SAFETY

Skin contact must be avoided by wearing protective nitrile gloves & overalls or other protective clothing. Eye protection should be worn to avoid risk of resin or hardener entering the eyes. If this occurs, flush the eye with water for 15 minutes, holding the eyelid open, and seek medical attention. Ensure adequate ventilation in work areas. Respiratory protection should be worn with ABEKP coded filters. RESOLTECH issues full Material Safety Data Sheet for all hazardous products. Please ensure that you have the correct MSDS to hand for the materials you are using before commencing work.

Nota : The data provided in this document are provided good-faith and are based on the test in laboratory and our practical experience and is believed to be accurate. Considering the application of our products gets away from our control, 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.