



# RESOLTECH 3500 HP

## Hardener 3508 HP

### Low Density Epoxy Adhesive paste

- 0,7 Density for all core materials bonding.
- High elongation properties.
- Excellent application characteristics.
- Long pot life for large structures.
- Room temperature curing.
- Superior impact resistance.



The Resoltech 3500 HP epoxy adhesive paste enables durable lightweight bonding of materials of different dilatations coefficient such as PVC core materials on composites structures, wood on composites, aluminium or steel

GRP laminates (polyester on polyester, vinylester on vinylester) bonded with the 3500 HP system will suffer delaminations before adhesive failure.

Resin and hardener are both colour coded to ensure consistency of the mix. The resin is bright yellow and the hardener blue leading to a green colour once fully mixed.

The simple 100:50 mixing ratio by weight is tolerant to small variations.

The low viscosity but highly tixotropic paste will be easily applied with notched trowels, while not sagging even applied on vertical surfaces in thick layers up to 15 mm.

In most conditions, the 3500 HP will cure overnight while obtaining its full mechanical properties after 3 days at room temperature.

Resoltech 3500 HP is easy to sand and may be used for strip planking with wood or foam strips.

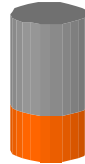
# Resin 3500 HP

Hardener 3508 HP

## Low Density Epoxy Adhesive Paste

### MIXING RATIO

	By weight
Resine 3500	100
Hardeners 3508HP	50



#### 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

### 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, MEK or similar solvents

**Metals** usually require 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 **timber**, 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 15mm without sagging.

- Avoid application under 10°C.
- 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, methylethylcetone (MEK) or equivalent.

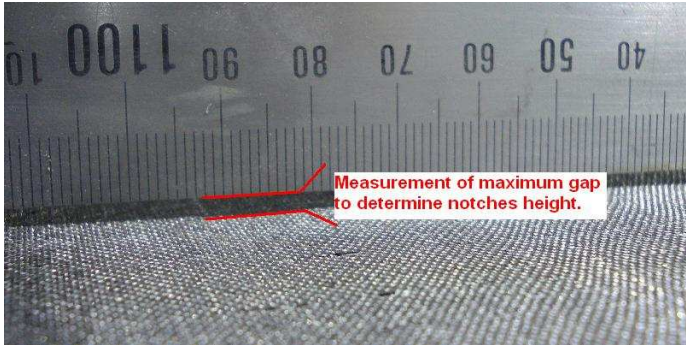
It is recommended to use **notched spreaders** in order to apply even thicknesses of adhesive on the surface to be bonded.

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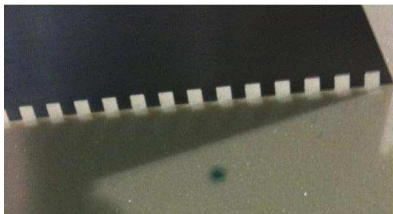
### Coverage:

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:

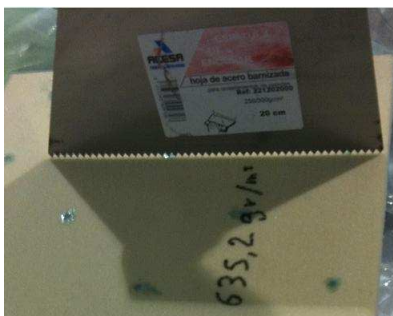


The height of the notches will be defined by the deepest surface un-evenness (ie: slumps of 3 mm on the surface to be bonded will require 5 mm high notches).

The following examples of notches types and sizes will help guide your choice while indicating the coverage in grams/sqm on a standard 110 kg/m<sup>3</sup> PVC foam core:



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



4 mm wide notches by 3 mm height, at a 90° angle: **635 gr/sqm**



4 mm wide notches by 3 mm height, at a 45° angle: **604 gr/sqm**



3 mm wide notches by 3 mm height with 2mm flat edge, at a 45° angle: **587 grams/sqm**

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### PHYSICAL CHARACTERISTICS @ 25°C

#### Visual aspect

3500 HP: Bright yellow paste  
3508HP : Electric blue paste  
Mix : Green paste

#### Density

REFERENCES	3500 HP	3508 HP	Mix
Density	0,8	0,6	0,7

#### Viscosity (Brookfield)

REFERENCES	3500 HP	3508 HP
Viscosity (mPa.s)	30000	6000
Mix viscosity (mPa.s)	-	15000

### REACTIVITY

All measures realized on Trombotech®

Reactivity	3500 / 3508 HP
Pot life on 375g @ 25°C	50 min
Gel time on 1 mm thick film @25°C	1 h 50
Clamp time @ 25°C	6 to 12 h

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## CURING

Optimal properties	3500 HP / 3508 HP
@ 20°C	3 days (6 to 12h clamp time)
@ 40°C	18h
@ 60°C	4h

## MECHANICAL PROPERTIES

### TRACTION

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Tensile strength @ 23°C (ASTM D638M-96) :	8.0 MPa
Elongation until breaking (%) @ 23°C (ASTM D638M-96) :	30 %

### HARDNESS

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Shore (ASTM D2240-97) :	64 D
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### SHEAR STRENGTH

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Shear resistance on beech wood @ 23°C :	10.0 MPa (until wood break)
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### GLASS TRANSITION

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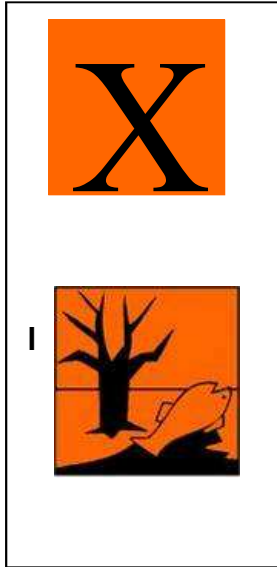
Glass transition temperature on Kinetech@ TGm :	52°C
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# Resin 3500 HP

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## LABELLING

3500 HP



3508 HP



## PACKAGING

- 0,75 KG Kit (0,5 Kg + 0,25 Kg)
- 1,5 kg Kit (1,0 Kg + 0,50 Kg)
- 4,5kg Kit (3,0 Kg + 1,50 Kg)
- 37,5 kg. Kit (25kg +12,5 kg)
- 300 kg kit ( 200 kg + 100 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 3500HP /3508HP 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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