

# RESOLTECH 3350 XT

# Hardener 3357 XT

# **Structural Epoxy adhesive Highly Thixotropic epoxy adhesive**

- Improved Toughness rubber toughened epoxy
- High shear and peeling resistances
- Non sagging vertical applications > to 20mm & 40mm horizontal
- All weather applicability even in high humidity conditions.









The RESOLTECH 3350 XT structural adhesive is a high performance toughened adhesive offering a high tenacity and peeling resistance. Its good elongation ratio enables to bond most materials, even if they have a large CTE difference.

Resoltech 3350 XT's rheology is of a highly tixotropic paste, making the mixing and application of large beads of adhesive possible like for the assembly of hull & decks on boats or windblade shells.

The vertical sagging limit of 20mm on vertical applications & 40 mm on horizontal applications will enable to bond uneven parts easily and in any angle

Particularly resistant to the propagation of micro-cracking, this system is well adapted to the bonding subject to important cycles of fatigue.

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# Highly thixotropic structural epoxy adhesive

## **MIXING RATIO**

	By weight	By volume
Resin 3350 XT	100	2
Hardener 3357 XT	45	1

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, MEK or similar solvents

**Metals such as aluminium** 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.

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 on vertical surfaces

- 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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# **PHYSICAL CHARACTERISTICS @ 23°C**

## Visual aspect

3350 XT : Off-white Gel 3357 XT : Brown Gel Mix : Brown Gel

## **Density**

REFERENCES	3350 XT	3357 XT	MIX
Density	1,04 ± 0.03	1,02 ± 0.03	1.03 ± 0.03

## **Viscosity**

REFERENCES	3350 XT	3357 XT
Viscosity (mPa.s)	Thixotropic Gel	Thixotropic Gel
Mix viscosity (mPa.s)	Thixotropic Gel	

# REACTIVITY

All measures realized on Trombotech®

Reactivity	3350 XT / 3357 XT
Gel time on 70mL @ 23°C	1h10
Exothermic Peak on 70mL @ 23°C	62°C
Time at exothermic peak on 70mL @ 23°C	1h30
Gel time on 3mm film @ 23°C	2h15
Hard & sandable on 3mm film @ 23°C	10h
Clamp time @ 23°C	8h

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## **CURING & POST-CURING**

Optimal properties	3350 XT / 3357 XT
@ 25°C	7 days (8h clamp time)
@ 50°C	16h
@ 70°C	5h
T <sub>G</sub> measured by Kinetech <sup>®</sup> after 16h @ 60°C	54.9°C

## **MECHANICAL PROPERTIES**

PROPERTIES @ 25°C	3350 XT / 3357 XT
Shear Resistance on Glass Laminate (MPa)*	13.7
Elongation at break (%)	1.9
Failure mode	Composite delamination

<sup>\*</sup>curing cycle : 24h25°C+10h60°C

## **Hardness**

REFERENCES	3350 XT / 3357 XT
Hardness after 24h @ 23°C	80 Shore D

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#### **PACKAGING**

#### Kits 3350 XT / 3357 XT :

- 1.45kg (1+0.45)kg
- 7.25kg (5+2.25)kg
- 36.25kg (25+11.25)kg
- 72.5kg (2x25+22.5)kg
- 580kg (2x200+180)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**

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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