RESOLTECH 3050C & 3050CT

Hardener 3054C & 3054CT

Structural Epoxy Adhesive

- **Structural epoxy adhesive for demanding applications**
- **Ambient temperature curing.**
- **1/1 mixing ration in volume.**
- **Thixotropic version, 3050CT available for non-sag vertical surface applications.**




The Resoltech 3050C & 3050CT epoxy adhesive is a rubber toughened, high performance adhesive that will enable bondings with very high mechanical resistance (310 kg/cm2) and high peel-resistance
It's curing at ambient temperature and 1/1 mixing ratio in volume or 100:80 by weight makes of the 3050C &3050CT an easy product to work with.
It will enables structural bondings of all types of composite materials, steel, aluminium, wood and will resist in a large range of operating temperatures from -50°C to +80°C, with a maximum service temperature of 140°C.
It is a solvent less adhesive with no contraction upon curing.
The 3050C/3054C is for horizontal applications only.
The 3050CT/3054CT is a thixotrpic version that will enable bondings in all application conditions

PHYSICAL ASPECT

Density (at 25°C)	Resin	1,18 gr/cm3
	Hardener	0,96 gr/cm3
	Mix	1.05 gr/cm3
Visual aspect:	Resin	Yellow viscous liquid
	Hardener	Blue viscous liquid
Viscosity, Brookfield at 25°C		
	Resin	35.000 mPa.s
	Hardener	50.000 mPas
	Mix:	40.000 mPas

Resin 3050C & 3050CT

Hardener 3054C & 3054CT

APPLICATION

Mixing ratio by volume	1:1
Mixing ratio by weight	100:80
Gel Time on 100g @ 25°C (TECAM)	118 min
Gel Time on 250g @ 25°C (TECAM)	75 min
Gel Time in film @ 25°C (TECAM)	4h
Exothemic Peak on 100 gr.	113 °C

RESOLTECH 3050C & 3054CT is an ambient temperature cure adhesive formulated for a large range ofb onding applications and will provide superior adherence onto composites, steel, aluminium, concrete and wood substrates. It is suitable for core bonding and also for composite to composite bonding.
All surfaces should be clean, dust-free and degreased. Good surface preparations will ensure long lasting bondings and optimum mechanical resistances.

For steel bonding, ensure the surfaces are clean, degreased and sanded.

For aluminium alloy or fibrocement bonding, an etching treatment is required prior to bonding.

For bonding onto porous materials, ensure the surface is dry and dust free.

For polyester or vinylester ensure that laminates are fully cured before bonding. When bonding epoxy laminates, the use of a Peel Ply as the last stage in their manufacture is a minimum requirement, optimum surface preparation consists in sanding with high grit abrasive is recommended.
Resoltech 3050C is also often used as structural adhesión promoter when laminating with epoxy on a Poliéster laminate. A coat of 3050C/3054C is applied uniformly onto the sanded poliéster, and the reinforcement is then laminated onto this adhesión coat.

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

- Assemble and maintain parts in contact during hardening with clamps, vacuum or masking tape. Do not over-clamp, being solvent-less, epoxies do not need pressure, just maintaining the parts together. Overly clamping will induce the risk of eliminating most of the adhesive film resulting in a poor bonding of the parts.

-Cleaning of the materials should be done before polymerization with acetone, methylethylcetone (MEK) or equivalent.

For more information, please refer to the applications technical bulletins (TechNotes), available on request.

MECHANICAL PROPERTIES

RESOLTECH 3050C &3050CT do not require a post cure, although a post cure at an elevated temperature (at 60°C for example) will improve mechanical properties and accelerate the cure.

Fully cured mix after 7 days at ambient temperature:

at 20°C : 7 days
at 40°C : 48 hours
at 60°C : 12 hours

Tensile/shear strength:	
Cured for 24H @ 25°C	20N/mm2
Cured for 7 days @ 25°C	29N/mm2
Cured for 7 days @ 25°C + 2H @ 70°C	31N/mm2
TG	
Maximum service temperature	140°C
TG after ambient temperature cure:	50-55 °C
Maximum TG after 2 h at 60 °C	66°C
Hardness Shore D	68

PACKING, TRANSPORT & STORAGE

1,80 Kg. PACK: Resin 1 Kg. + hardener 0.8 Kg. in metal can
9 Kg. PACK: Resin 5 Kg. + 4 Kg. in metal can
36 Kg. PACK: Resin 20 Kg. + 16 Kg. metal drums
360 Kg. PACK: Resin 200 Kg. + 160 Kg. metal drums

Shelf life is at least one year in sealed containers as provided. Keep containers sealed and away from heat and cold.

HEALTH & SAFETY

Although the 3050C & 3050CT 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.