

High Shear Strength

Excellent Bond on Concrete or Steel Structural for Build Strip [Plate] & Build Seal Prepreg only

Two Component Epoxy Paste Adhesive

Key Properties Advantages

- * Suitable for Strip Laminates as Carbon Fiber & SMC Bonding
- * Gap Filling, Non Sagging up to 6.00 mm Thickness
- * Ultra High Shear Strength up to 15 N/mm²
- * High Peel Strength (Cleavage Strength) up to 4 N/mm²
- * Toughened Adhesive
- * Thixotropic
- * Properties of Good Curing, Glass Transition & Clamp Time
- * 3 Design of Curing Time for Standard, Slow & Fast Adhesive
- * Fire Resistance

Description **Epo Adhesive Strip 340** is a two component, room temperature curing paste adhesive giving a resilient bond. It is thixotropic, high Shear & Cleavage strength and non sagging up to 10 mm thickness. It is particularly suitable for Concrete bonding to Concrete, Concrete bonding to Carbon Fiber Laminates Strip, Concrete bonding to SMC Panel and Metal bonding to Metal.

Processing **Pretreatment**

The strength and durability of the bonded joint are depending on proper treatment of the surfaces to be bonded. At the very least, joint surfaces should be cleaned with a good degreasing agent such as Acetone, Trichloroethylene or proprietary degreasing agent in order to remove all surfaces of oil, grease and dirt.

Alcohol, gasoline (petrol) or paint thinner should never be used.

The strongest and most durable joint are obtained by either mechanically abrading or chemically etching (pickling) the degreased surfaces. Abrading should be followed by a second degreasing treatment.

Application

The resin and hardener mix is applied with a Spatula Tools, to pretreated and dry joint surfaces.

A layer of Adhesive from 0.05 mm to 6.00 mm thick normally impart the greatest lap Shear Strength to the joint.

The joint component should be assembled and clamped as soon as the Adhesive has been applied. An even contact pressure throughout the joint area will ensure optimum cure.

Mechanical **Processing**

Specialist firm have developed metering, mixing and spreading equipment that enables the bulk processing of Adhesive. **LaMaCo** will be pleased to advise customers on the choice of equipment for their particular needs.

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Times to Minimum Shear Strength

Temperature	°C	10	15	23	40	60	100
Epo Adhesive Strip 340	Hours	21	13	6	2	-	-
Cure time to reach							
Lap Shear Strength > 10 N/mm2	Minutes	-	-	-	-	35	7

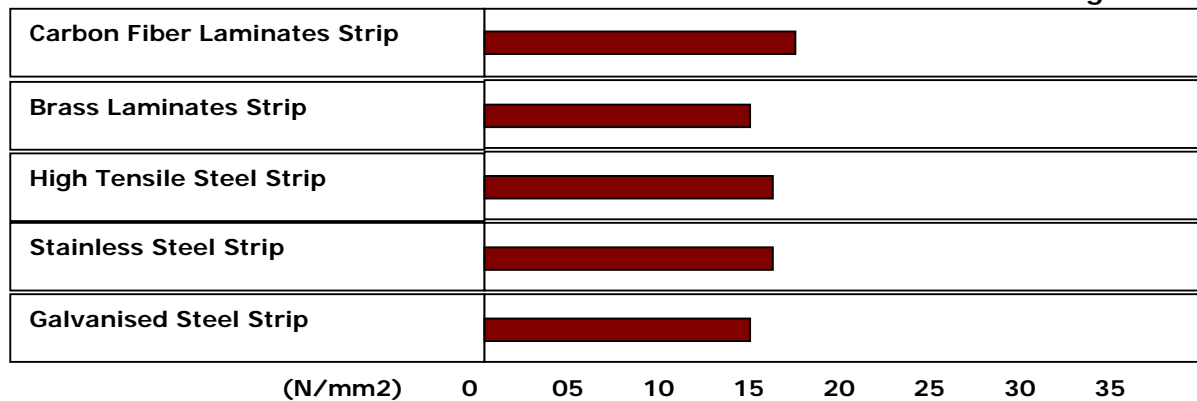
Typical Cured Properties

Unless otherwise stated, the figures given below were all determined by testing standard specimens made by lap-jointing 170 mm x 25 mm x 1.50 mm strip of Carbon Fiber. The joint was 12.5 mm x 25 mm in each case.

The figures were determined with typical production batches using standard testing methods. They are provided solely as technical information and do not constitute a product specification.

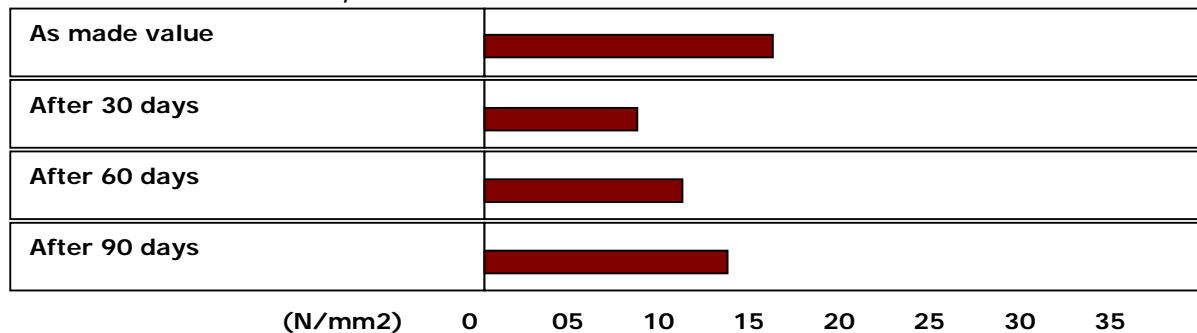
Average of Lap Shear Strength of Typical Strip CFGP to Strip GFRP OR Metal to Metal Joint

Cured for 16 hours at 40 °C and tested at 25 °C Pretreatment – Sand Blasting



Lap Shear Strength Versus Tropical Weathering (Typical Average Values)

Cure: 16 hours at 40 °C, tested at 25 °C



System Recommended Use Resin Component

Grade of Carbon Fiber	Grade of Adhesive Recommendation	Shear Strength	Peel Strength (Cleavage)
Build Strip Type: HS, HM & UHM	Epo Adhesive Strip 340 (Standard) High Shear & Peel Strength	15 N/mm ²	4 N/mm ²
Build Strip Type: HS, HM & UHM	Epo Adhesive Strip 335 (Slow or Fast) Ultra High Shear & Peel Strength	35 N/mm ²	12 N/mm ²
Build Strip Type: HS, HM & UHM	Epo Adhesive Strip 765 (Slow or Fast) Fire Retardant System	25 N/mm ²	6 N/mm ²

Consumptions of Epoxy Adhesive

Type of Strip Laminates	Require Approximately of Epoxy Adhesive kilogram per Linear Meter	Epo Adhesive Strip 340 10.00 kg pack Coverage LM/pack	Epo Adhesive Strip 335 36.50 kg pack Coverage LM/pack
All Types: 512 & 514	0.30 kg per linear meter	33.33 LM/pack	121.66 LM/pack
All Types: 612 & 614	0.37 kg per linear meter	27.00 LM/pack	98.64 LM/pack
All Types: 812 & 814	0.50 kg per linear meter	20.00 LM/pack	73.00 LM/pack
All Types: 914	0.57 kg per linear meter	17.54 LM/pack	64.03 LM/pack
All Types: 1012 & 1014	0.63 kg per linear meter	15.87 LM/pack	57.93 LM/pack
All Types: 1212 & 1214	0.73 kg per linear meter	13.69 LM/pack	50.00 LM/pack
All Types: 1512 & 1514	0.90 kg per linear meter	11.11 LM/pack	40.55 LM/pack

Epoxy Adhesive Properties of Specification

Appearance	Component A: 1 parts by weight Component B: 1 parts by weight
Shear Strength	15 N/mm ²
Peel Strength (Cleavage)	4 N/mm ²
Tensile Strength at 35 °C	30 N/mm ²
Tensile Modulus	2 Gpa
Elongation at Break	4.4 %
Dielectric Constant	5.6 at 1 kNz (Note: 500v at 35 °C)
Colour (visual)	Neutral Paste
Specific Gravity	1.4
Sag Flow at 35 °C	0.05 mm to 6.00 mm thick
Shrinkage	0.04%
Glass Transition Point	> 67 °C
Coefficient of Expansion	9 x 10 ⁻⁶ per °C at 10°C to 40°C
Open Time at 35 °C	> 30 minutes
Pot Life at 35 °C	> 30 to 40 minutes
Shelf Life / Storage	24 months in original packaging & stored at 5°C to 25°C
Packing:	10 kg set (5 kg of Part A – Resin) & (5 kg of Part B - Hardener) 40 kg set (20 kg of Part A – Resin & (20 kg of Part B – Hardener)



LaMaCo System Sdn Bhd

407, Jalan Perusahaan 6,
Taman Bandar Baru Mergong,
05150 Alor Setar, Kedah. Malaysia.
Tel : +60-4-734 5555 Fax : +60-4-772 4444
Http : www.lamaco.com
Email : info@lamaco.com

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