

MAKOBOND LAMINATE RESIN 305

PRODUCT DESCRIPTION

Makobond LR 305 is a low viscosity laminate resin designed for composite parts and structural production. LR 305 provides a one-hour pot life and will completely cure at room temperature. Other applications for LR 305 include aircrafts, radomes, auto bodies, and prototyping. LR 305 also allows the addition of various additives to promote desired properties like adhesion.

PRODUCT HIGHLIGHTS

- EASY MIXING
- CRAFTED FOR COMPOSITE PARTS
- ROOM TEMPERATURE CURE

PRODUCT CHARACTERISTICS

	LR 305A	LR 305B
Viscosity @ 25°C	1,700 cps.	190 cps.
Specific Gravity	1.15	0.96
Color	Amber	Amber

PHYSICAL PROPERTIES

	Results	ASTM Method
Cured Hardness (Shore D)	87-89D	D2240
Flexural Strength (psi)	16,051 psi	D790
Flexural Modulus (psi)	465,000 psi	D790
Compressive Strength (psi)	14,050 psi	D695
Tensile Strength (psi)	10,006 psi	D638
Tensile Modulus (psi)	417,882 psi	D638
Glass Transition Temperature, T _g , (DMA)	203°F	D4065

HANDLING PROPERTIES

Laminate Resin 305	
Mix Ratio By Weight, Resin, Hardener	100:27
Mix Ratio By Volume, Resin, Hardener	3:1
Mixed Viscosity @ 25°C	900 cps.
Pot Life @ 25°C	60-70 minutes

HANDLING AND CURING

Measure out the proper weights of LR 305 and mix until uniform and no streaks are present throughout. Be sure to scrape the sides and bottom on mixing container to avoid any unmixed material. Allow laminate to cure for at least 24 hours at room temperature before attempting to move. If a faster cure is desired, once the material has gelled cure laminate at 200°F for four to six hours.

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PACKAGING WEIGHTS

	Quart Kit	Gallon Kit	Pail Kit	Drum Kit
LR-305A	2.5	8 lbs	48 lbs	440 lbs
LR-305B	0.68 lbs	2.2 lbs	13 lbs	120 lbs
LR-305 Kit	3.18 lbs	10.2 lbs	61 lbs	560 lbs

STORAGE AND SAFETY

Makobond LR 305 has a shelf life of 12 months from date of shipment when unopened and stored at ambient temperatures, (18-27°C). Nitrogen purging opened containers is recommended before re-sealing. LR 305A can appear hazy, in this case heating the material at 180°F for a few hours is recommended. This will have no effect on any finished product. Users need to exercise proper care while working with material; gloves, eyewear, and proper ventilation are recommended. Warning: All thermosetting matrix systems undergo exothermic reaction during vulcanization and/or curing, generating heat. If not properly managed, exothermic reactions may release possibly flammable or toxic gases into the surrounding. Users should exercise extreme caution when blending large volumes of ingredients (ie greater than 1 lb), and/or curing thick sections of components (typically greater than 0.200 inches). Users should monitor heat profiles of any curing or blended materials carefully and attentively during cure. Please contact a Mako team member with any concerns prior to use and/or to coordinate the proper management of safety and temperature monitoring process to avoid exothermic phenomena.