

MAKOBOND ADHESIVE PASTE 109

PRODUCT DESCRIPTION

Makobond AP 109 is a two-component epoxy adhesive designed for difficult bonding applications. This multi-purpose adhesive has a simple 1:1 mix ratio by both volume and weight and can be easily applied with no sag. AP 109 has excellent cured properties as well as good resistance to various chemicals and harsh environments..

PRODUCT HIGHLIGHTS

- Excellent Bonding
- All Purpose Adhesive
- 1:1 Mix Ratio
- Easy Handling

PRODUCT CHARACTERISTICS

	AP 109A	AP 109B
Viscosity @ 25°C	Paste	Paste
Specific Gravity	1.53	1.50
Color	Off White	Tan

HANDLING PROPERTIES

Adhesive Paste 109	
Mix Ratio By Weight, Resin, Hardener	100:100
Mix Ratio By Volume, Resin, Hardener	1:1
Mixed Viscosity @ 25°C	Thixotropic Paste
Pot Life @ 25°C	20-30 minutes

PHYSICAL PROPERTIES

	Results	ASTM Method
Cured Hardness (Shore D)	87-92D	D2240
Tensile Strength (psi)	7,239 psi	D790
Compressive Strength (psi)	14,268 psi	D695
1.Lap Shear (psi) Aluminum to Aluminum	3,506 psi	D1002
Water Absorption	<0.2%	D570

1. Test specimens are cured 4 hours at room temperature and heat cured for 16 hours at 160°F

HANDLING AND CURING

Measure out equal parts of AP 109 and mix until uniform with no streaks are present throughout. Scrape container for any unmixed material. Apply AP 109 to prepared surface and let set at 25°C (77°F) for a couple hours. Cure for at least 6 hours at room temperature to ensure material has cured and properly bonded. If a faster cure cycle is desired, cure material at 65.6°C (150°F) for 1 hour after the material has set up for at least 2 hours.

MAKOBOND ADHESIVE PASTE 109

PACKAGING WEIGHTS

	Quart Kit	Gallon Kit	Pail Kit	Drum Kit
AP-109A	3 lbs	12 lbs	60 lbs	600 lbs
AP-109B	3 lbs	12 lbs	60 lbs	600 lbs
AP-109 Kit	6 lbs	24 lbs	120 lbs	1,200 lbs

STORAGE AND SAFETY

Makobond AP 109 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. AP 109B may darken over time but this will not affect any of its properties. 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.