

MAKOBOND INFUSION RESIN 215

PRODUCT DESCRIPTION

Makobond IR 215 is a translucent fire-retardant infusion system. IR 215 has a mixed viscosity of under 1,000 cps making it easy to wet out fabrics. The one-hour pot life provides enough time to successfully infuse most large laminates. IR 215 passes FAR specification 14 CFR 25.853.

PRODUCT HIGHLIGHTS

- FIRE RETARDANT
- LOW VISCOSITY
- NO HARD SETTLE
- LONG POT LIFE

PRODUCT CHARACTERISTICS

	IR 215A	IR 215B
Viscosity @ 25°C	1,800 cps.	100 cps.
Specific Gravity	1.24	0.95
Color	Amber	Amber

PHYSICAL PROPERTIES

	Results	ASTM Method
Cured Hardness (Shore D)	87-92D	D2240
Flexural Strength (psi)	21,310 psi	D790
Flexural Modulus (psi)	576,820 psi	D790
Compressive Strength (psi)	18,369 psi	D695
Tensile Strength (psi)	10,503 psi	D638
Tensile Modulus (psi)	502,891 psi	D638
Glass Transition Temperature, Tg, (DMA)	270.3°F	D4065

HANDLING PROPERTIES

Infusion Resin 215	
Mix Ratio By Weight, Resin, Hardener	100:24.5
Mix Ratio By Volume, Resin, Hardener	3:1
Mixed Viscosity @ 25°C	900 cps.
Pot Life @ 25°C	55-70 minutes

HANDLING AND CURING

Mix IR 215A prior to measuring out needed amount to avoid settling. Measure out the proper weights of IR 215 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. IR 215 should be left to cure overnight at room temperature, then follow the following post cure schedule; 5 hours at 150°F, then 5 hours at 250°F. IR-215 can be heated slightly to facilitate better infusion of larger parts. Users pot life will decrease if material is warmed, be sure to consult with a Mako team member prior to infusion.

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PACKAGING WEIGHTS

	Quart Kit	Gallon Kit	Pail Kit	Drum Kit
IR-215A	2 lbs	8 lbs	45 lbs	450 lbs
IR-215B	0.5 lbs	2 lbs	11 lbs	110 lbs
IR-215 Kit	2.5 lbs	10 lbs	56 lbs	560 lbs

STORAGE AND SAFETY

Makobond IR 215 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. IR 215B may darken over time, but 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.