

## **MAKOBOND INFUSION RESIN 202**

#### **PRODUCT** DESCRIPTION

Makobond IR 202 is a very low viscosity infusion resin designed for various parts and structures. IR 202 is easy mix and has a favorable flow which helps produce beautiful finished products leaving no voids. The IR 202 system has some of the highest cured properties of any infusion resin providing tough parts that are sure to last a long time.

#### **PRODUCT** HIGHLIGHTS

#### • LOW MIXED VISCOSITY • ZERO VOIDS • LONG LASTING TOUGH PARTS

#### **PRODUCT** CHARACTERISTICS

	IR 202A	IR 202B	
Viscosity @ 25°C	1,000 cps.	20 cps.	
Specific Gravity	1.10	1.00	
Color	Clear	Amber	

#### HANDLING PROPERTIES

Infusion Resin 202				
Mix Ratio By Weight, Resin, Hardener	100:23			
Mix Ratio By Volume, Resin, Hardener	4:1			
Mixed Viscosity @ 25°C	300 cps.			
Pot Life @ 25°C	55-85 minutes			

#### **PHYSICAL** PROPERTIES

	Results	ASTM Method	
Cured Hardness (Shore D)	84-87D	D2240	
Flexural Strength (psi)	19,023 psi	D790	
Flexural Modulus (psi)	530,119 psi	D790	
Compressive Strength (psi)	15,726 psi	D695	
Tensile Strength (psi)	11,065 psi D638		
Tensile Modulus (psi)	485,947 psi D638		
Glass Transition Temperature, Tg, (DMA)	210°F	210°F D4065	

### HANDLING AND CURING

Measure out the proper weights of IR 202 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 202 will cure at room temperature, a full cure at room temperature will take 5 days. Heat can be applied to speed up cure time, after the system has been allowed to cure at room temperature for 18 hours. A cure of 8 hours at 180°F is sufficient. The size of the laminate will change cure temperature and duration.



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#### PACKAGING WEIGHTS

	Quart Kit	Gallon Kit	Pail Kit	Drum Kit
IR-202A	2 lbs	9 lbs	35 lbs	425 lbs
IR-202B	0.46 lbs	2 lbs	8 lbs	99 lbs
IR-202 Kit	2.46 lbs	11 lbs	43 lbs	524 lbs

## STORAGE AND SAFETY

Makobond IR 202 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 202B 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.