

MAKOBOND INFUSION RESIN 207

PRODUCT DESCRIPTION

Makobond IR 207 is a high-strength toughened system, perfect for producing durable structures. Its low viscosity suits resin infusion and hand lay-up processes, offering versatility. Ideal for parts under high stress and severe impact, it ensures exceptional cured properties.

PRODUCT HIGHLIGHTS

- HYBRID SYSTEM
- ROOM TEMP CURE
- HIGH CURE PROPERTIES
- LONG POT LIFE

PRODUCT CHARACTERISTICS

| | IR 207A | IR 207B |
|------------------|--------------|-------------|
| Viscosity @ 25°C | 11,500 cps | 45 cps |
| Specific Gravity | 1.15 | 0.97 |
| Color | Slight Amber | Light Amber |

PHYSICAL PROPERTIES

| | Results | ASTM Method |
|--|-------------|-------------|
| Cured Hardness (Shore D) | 86-88D | D2240 |
| Flexural Strength (psi) | 15,168psi | D790 |
| Flexural Modulus (psi) | 440,716 psi | D790 |
| Compressive Strength (psi) | 10,702 psi | D695 |
| Tensile Strength (psi) | 8,265 psi | D638 |
| Tensile Modulus (psi) | 408,389 psi | D638 |
| Glass Transition Temperature, T _g , (DMA) | 195°F | D4065 |

HANDLING PROPERTIES

| Infusion Resin 207 | |
|--------------------------------------|-----------------|
| Mix Ratio By Weight, Resin, Hardener | 100:40 |
| Mix Ratio By Volume, Resin, Hardener | 2:1 |
| Mixed Viscosity @ 25°C | 600 cps. |
| Pot Life @ 25°C | 210-300 minutes |

HANDLING AND CURING

Measure out the proper weights of IR 207 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 207 will cure at room temperature but does need a post cure to reach full properties. After the initial gel of IR 207 it will be very brittle, any part or structure needs to be supported during heat cure to prevent any sag prior to full cure. A post cure of 8-10 hours at 150°F plus 3 hours at 180°F is recommended.

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PACKAGING WEIGHTS

| | Quart Kit | Gallon Kit | Pail Kit | Drum Kit |
|------------|-----------|------------|----------|----------|
| IR-207A | 2.5 lbs | 9 lbs | 35 lbs | 450 lbs |
| IR-207B | 1 lbs | 3.6 lbs | 14 lbs | 180 lbs |
| IR-207 Kit | 3.5 lbs | 12.6 lbs | 49 lbs | 630 lbs |

STORAGE AND SAFETY

Makobond IR 207 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 207B 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.