THERMACRYL

Heat Adjustable Thermoplastic Laminating Resin

- Styrene free resin
- Heat moldable thermoplastic resin
- Fast setting formula
- Laminated sockets are heat adjustable
- For bubble and crack free laminates
- Excellent fiber wet out saves time
- Extremely easy to work with

BENEFITS OF THERMACRYL RESIN

- Post cure thermoformable by the application of heat.
- Viscosity tailored for vacuum bagging and infusion.
- Provides excellent fiber wet out and adhesion.
- Increased shelf life up to 24 months with proper storage.
- Fabrication of high quality light weight laminations.
- Maintains strength and shape in thin wall laminations.
- Low shrinkage of less than 2%.
- Edges are easily buffed to a fine smooth finish.
- Clear resin color easily pigmented to any desired color.
- Does not liberate gas and will not develop air pockets or bubbles during the curing process.
- May be combined with and used in conjunction with any other acrylic based thermoplastic resin system.
- Laminated parts can be assembled with adhesives.
- Will hold a perfect vacuum, great for elevated vacuum sockets.
- Thermoformability eliminates the need to laminate additional sockets, which saves on shop materials and labor costs.

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PRODUCT TECHNICAL INFORMATION

THERMACRYL is a high quality THERMOFORMABLE and versatile vacuum bagging polymer matrix resin that produces exceptional physical properties when fully cured at room temperature, as well as ease of use for the fabrication of all types of containment sockets and orthopedic parts that may need to be “heat relieved” after fabrication.

THERMACRYL is formulated to have a gel time of between 15 ~ 17 minutes when combined with the recommended 2 % BP150 powder hardener, measured by mass or volume, with a shop temperature of 75*F / 24*C.

Please use a precision scale or volumetric measuring spoon to measure the powder hardener to achieve consistent results.

Warmer summer shop temperatures will reduce the viscosity and speed up the curing time. (10 minutes @ 28*C)

Cooler winter shop temperatures will increase the viscosity and slow down the curing time. (20 minutes @ 20*C)

The cure rate of this resin is temperature and volume sensitive, which means that a large quantity of resin will cure faster than a smaller amount, causing the thinner sections of your laminate to take several minutes longer to cure than the thicker sections. Very thin sections may require the application of some external heat to speed up the cure.

Typically the vacuum can be cut off after approximately 20 minutes, and you should be able to strip the fabrication down after 1 hour. Before demolding, always check to ensure that the resin has fully hardened.

THERMACRYL will achieve high strength with a dust dry surface after 30 minutes, however, it will continue to get harder, stronger and tougher for up to 24 hours, with superior scratch and mar resistance for an improved aesthetic durability. Reduces fiber-fly when grinding or sanding by trapping the fly in the resin, which reduces flying fiber itch !

THERMACRYL is formulated for use with carbon, glass, kevlar and all synthetic textile fiber reinforcement materials.

Depending on the type and quantity of reinforcement materials used in your layup, it should be possible to heat relieve a socket by the application of heat after the resin has cured, but the temperature must not exceed 250*F / 120*C.

To achieve the best results, always laminate over a sealed, or as dry a cast as possible. If it is not possible and the cast is damp, use one of our Latex Isolation Sheaths and a PVA release bag/film, to isolate the resin from the moisture.

Remember to dry the inner and outer PVA vacuum bag surfaces.

Storage of THERMACRYL resin beyond the date specified on the bottle label does not necessarily mean that the product is no longer usable. In this case however, a performance test must be done on a small 50g sample of resin to determine its suitability for the intended usage. Contact our office for more technical information and fabrication tips.

Pigmentation Note: Any color of pigment may be used with THERMACRYL, but color black must be iron oxide based.