Polymer Composites Incorporated
Product Data Sheet Of
MAX HTE A/B
HIGH TEMPERATURE EPOXY SYSTEM

DESCRIPTION

MAX HTE A/B is a two-part epoxy based system especially formulated to provide structural strength at temperatures of up to 200°C. It can be used as an impregnating resin for a variety of fabric selection such as fiberglass, carbon fiber and Kevlar for high temperature composites application.

MAX HTE A/B can also be utilized as an adhesive, encapsulants or potting compound, tooling resin for high temperature applications.

MAX HTE provides a long pot life and a relatively short heat cure time. It is especially designed to withstand continuous high temperature service and chemical resistance. MAX HTE A/B is 100 % solids and does not contain Ozone Depleting Chemicals (ODC).

MAX HTE will harden to a glass-like consistency at room temperature however it will require a short heat cure (2 Hours minimum at 100°C) for it to develop enough strength for handling. MAX HTE will fully cure when the part is exposed to the operating temperature or by curing at the specified cure schedule as noted below.

PHYSICAL PROPERTIES

Density	1.10 G/CC
Mixed Color	Amber Liquid
Mixed Viscosity	3000-3500 CPS at 25˚C
Mix Ratio	28 Parts "B" to 100 Parts "A" By Weight
Gel Time/Pot Life	3 Hours at 25 ˚C
Full Cure Time	4 Hours at 25 ˚C or until gel 3 Hours At 130 °C Or 3 Hours at 25˚C plus 2 Hours At 155°C

MECHANICAL PROPERTIES

Hardness	95 Shore Durometer D
Tee-Peel Strength	12 Pounds Per Inch Width
Tensile Strength	11.0 KSI
Tensile Modulus	372 KSI
Tensile Shear Strength	4200 PSI At 25 ˚C
Aluminum- Aluminum	3300 PSI At 60 ˚C
	2900 PSI At 80 ˚C
	2200 PSI At 121 ˚C
Compressive Strength	15,000 PSI
Glass Transition Temperature	205 ˚C

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Impregnating System

Chemical Resistance Test (120 days 77ºF Immersion)

	%Weight Change
Deionized Water	1.63
Acetone	6.86
Methanol	7.04
Ethanol	0.44
Toluene	0.27
25% Acetic Acid	12.95
30% Sulfuric Acid	1.81
10% Nitric Acid	3.73
10% Ammonium Hydroxide	1.68
10% Sodium Hydroxide	1.38
Motor Oil Soak	No Affect

PACKAGING AND STORAGE

MAX HTE A/B is available in pints, quarts, gallon, 5 gallon, and 55-gallon kits. Use size kits and special packaging requests are also available. MAX HTE A/B should be stored in a cool dry place. Do not store above 30 °C for prolonged period. To insure stability, keep MAX HTE Part B dry. Reseal with dry nitrogen if available. In an opened original container, MAX HTE A/B has a shelf life six months from the date of shipment.