



PRODUCT TECHNICAL DATA SHEET

439 Matrix

Medium Temperature System

Main description --- A two-component, medium temperature matrix used in our PowerSleeve® composite reinforcement products. This ambient temperature cure matrix wets out easily and can be applied to our PowerSleeve® W-11 and G-03 Fabrics. It is relatively fast setting, approximately 60 minutes @77° F and is used where a maximum service temperature of 300° F is desired. Intermittent excursions to 325° F can also be tolerated. The color will change from a mild yellow to dark amber when temperatures rise above 140° F. This product ships DOT hazardous (corrosive).

ATTENTION: All of the following data are based on laboratory conditions, at room temperature. Field conditions can radically change the characteristics of this product. Higher temperatures will lessen the working life of the product. Allow adequate time for application. Field testing is strongly recommended prior to application.

EPOXY PROPERTIES			
Working (pot) Life:	30-40 min. at 25°C (77°F)	Mix Ratio:	Factory Ratioed
Application Temps:	19-57°C (65-135°F)	Service Temps:	0-163°C (32 – 325°F)
Cure Time (dry to touch):	90 min. 25°C (77°F)	Full Cure:	7 days at 25°C (77°F)
Usual Packaging:	Factory Ratioed	Shelf Life:	1 year in sealed jar
Color:	Amber – Darkens with heat exposure	Hardness:	90-95 Shore D - ASTM D-2240
COMPOSITE LAMINATE PROPERTIES			
TEST	W-11 FABRIC	G-03 FABRIC	
Ultimate Tensile Strength:	51,800 psi (warp direction) per ASTM D-3039	50,100 psi (warp direction) per ASTM D-3039	
Ultimate Tensile Strength:	12,600 (fill direction) per ASTM D-3039	26,161 (fill direction) per ASTM D-3039	
Tensile Modulus:	2.7 x 10 ⁶ psi	2.5 x 10 ⁶ psi	
Load Per Ply:	1,800 lbs.	868 lbs.	
HDT:	N/A	N/A	
CTE, in/in/°F:	N/A	N/A	

Storage & Handling – Store at 60-90° F in a dry place. Keep from freezing. Keep any leftover material in a tightly sealed container. Always use clean, dry tools when mixing and applying the matrix. Mix ratios are pre-determined and packaged accordingly. Normal mixing procedure is to pour the contents of the Part B container into the Part A container and mix thoroughly. Use immediately. Mixtures left in containers can obtain dangerous temperatures during cure and can cause damage to the container and surrounding items.

Shelf Life – 12 months from date of sale, in an unopened container, stored in cool warehouse conditions.

Caution – Read MSDS prior to use. Some persons may be irritated by this compound. Use caution and PPE. This product is for industrial use by professionally trained personnel only. Please read and understand all application instructions prior to using.

N/A - Data not available at the time of printing.

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