An ISO 9001:2008
Certified Supplier

PRODUCT TECHNICAL DATA SHEET

X-TEMP-2 Matrix

High Temperature System For Up To 232° C (450°F)

PowerSleeve® is a high strength, field-applied composite system that is used for structural reinforcement of damaged piping. It is a wet layup, or field-pregged, fiber-reinforced polymer (FRP) system that consists of custom blended epoxy and unique fiber reinforcements tailored for piping repair. This product is suitable for pipes with leaks of which may develop leaks. This produced meets the requirements of the ASME PCC-2 standard.

FEATURES

- **Complete Installation Kits**
- **High Strength Carbon Fiber Available**
- **Low Training Time**
- **Excellent Toughness-Resists Cracking**
- **Excellent Chemical Resistance**
- **Works Over Obstructions**
- **Factory Pre-Measured and Sealed Components**
- **High temperature installation**

A two-component, heat and chemical resistant matrix used in our PowerSleeve® composite reinforcement products. This elevated temperature cure matrix wets out easily and can be applied to our PowerSleeve® W-11, G-03, C-2 carbon and our highly conformable Bear™ Fabrics. To achieve its ultimate chemical resistance properties requires post cure per the instruction sheet. It is relatively fast setting, approximately 80 minutes at the minimum application temperature of 150° F. Designed for use where maximum service temperature of 450° F is desired. This product must be post cured in order to achieve the best chemical resistance properties. The color will be dark amber when temperatures rise above 200° F. This product ships DOT hazardous (corrosive).

EPOXY PROPERTIES			
Working (pot) Life:	12 hours at 25°C (77°F)	**Mix Ratio:**	Factory Ratioed
Application Temps:	66-104°C (150-220°F)	**Service Temps:**	66-232°C (150 – 450°F)
Cure Time (dry to touch)**:**	6 hours 66°C (150°F)	**Full Cure:**	14 hours at 66°C (150°F)
Kit Packaging:	Fabric cut and resin premeasured	**Shelf Life:**	1 year in sealed jar
Color:	Dark Amber	**Hardness:**	90-95 Shore D - ASTM D-2240

COMPOSITE LAMINATE PROPERTIES		
TEST	**W-11 FABRIC**	**G-03 FABRIC**
Ultimate Tensile Strength:	48613 psi (warp direction) per ASTM D-3039	45,643 psi (warp direction) per ASTM D-3039
Ultimate Tensile Strength:	12,909 (fill direction) per ASTM D-3039	18,987 (fill direction) per ASTM D-3039
Tensile Modulus:	2.86 x 10^6 psi (warp direction)	2.47 x 10^6 psi (warp direction)
Per Ply Thickness:	.034” nominal	.017” nominal
Load Per Ply:	1759 lbs.	771 lbs.
HDT:	575° F	500° F
CTE, inx10^{-6} /in/°F:	5.3	estimated 6.0

Tensile data was takes on panels typical of field lay-ups.

ATTENTION: All of the proceeding data are based on laboratory conditions, at room temperature. Field conditions can 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.

Storage & Handling

Store at 60-90° F in a dry place. Do not freeze. 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 these products. 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.

Design and Application Instructions

Design guidelines, application notes and wrap calculations for various applications are available from the factory.

Warranty

The manufacturer warrants that the goods delivered hereunder shall be free from defects in material and workmanship. The WARRANTY shall extend for a period of one (1) year after date of delivery of such goods to customer. This warranty is void in the event that the protective pouch has been damaged. THE MANUFACTURER MAKES NO WARRANTY EXPRESS, IMPLIED, (INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR INTENDED PURPOSE), OR STATUTORY, OTHER THAN THE FOREGOING EXPRESS WARRANTY. Failure of customer to submit any claim hereunder within the Warranty Period after receipt of such goods shall be an admission by customer and conclusive proof that such articles are in every respect as warranted and shall release the manufacturer from any and all claims for damage or loss sustained by customer. In the event customer submits a claim for defective material within the required Warranty Period, the parties agree that customer's sole and exclusive remedy shall be the replacement of such defective goods or a refund of the price of the defective goods. To the greatest extent practical defective goods shall be returned to the manufacturer for analysis. IN NO EVENT SHALL THE MANUFACTURER BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OR SPECIAL, INDIRECT OR INCIDENTAL DAMAGES ARISING OUT OF, OR AS THE RESULT OF, THE SALE, DELIVERY, NON-DELIVERY, LOSS OF USE OF GOODS OR ANY PART THEREOF, EVEN THOUGH THE MANUFACTURER HAS BEEN NEGLIGENT OR HAS BEEN INFORMED OF CIRCUMSTANCES WHICH MIGHT GIVE RISE TO SUCH DAMAGES.

Data and parameters listed herein and in our data sheets have been obtained by Air Logistics Corporation using materials under carefully controlled conditions. Data of this type should not be used by engineers as design specifications, but rather as indicative of ultimate properties obtainable. Before using, user should determine the suitability of the product for its intended use. In determining whether the material is suited for a particular use, such factors as overall application configuration and design, field conditions and environmental criteria to which it will be subjected should be considered by the user.

F. A. C. S.™
FIELD-APPLIED COMPOSITE SYSTEMS

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