Product Overview

E-722 Epoxy Prepregs

Park's E-722 is a modified 176°C cure epoxy system with excellent processing characteristics for vacuum bag, press, and autoclave molding.

Key Features & Benefits

- Epoxy resin system optimized for use with woven aramid reinforcements
- Meets requirements of MIL-R-9300B, Type 1
- Long out-time for easy processing

Product Forms

- Available on a wide variety of reinforcements, including Fiberglass, Quartz and Aramid (Twaron® and Kevlar®)
- Solution coated fabrics up to 150 cm wide
- Compatible with Autoclave, Vacuum Bag/Oven or Press Molding processes

Applications / Qualifications

- Military Helicopters
- Engine Nacelles
- Work Platforms
- Doors
- Air Frames

Qualified Specifications

- SS9612
- SS9578

For Information about Park's materials:

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PARK AEROSPACE CORP.

Technical Datasheet

E-722 Epoxy Prepregs

Prepreg and Laminate Physical Properties

Reinforcement	7781 E-Glass	120 Aramid	285 Aramid
Prepreg Resin Content (%)	35 – 40	60-66	52 – 58
Resin Flow (163°C, 6.9 kPa) (%)	7 – 21	28 – 45	15 – 35
Volatiles (135°C, 8 min) (% max)	2.0	3.0	3.0
Gel Time (min)	1 -2.5	1 - 6	1 – 4

Processing Guidelines

Prepreg Storage Life

Tack Life: 14 days @ 24°C
Out Life: 30 days @ 24°C
Shelf Life: 12 months @ -18°C

Note: The following guidelines are provided to assist Park material users with general recommendations for successful processing. The recommendations are for general review purposes only and process adjustments may be required to achieve optimum results in your specific manufacturing environment.

Autoclave Cure Cycle

- Apply 1 bar vacuum (minimum) for 1 hour before beginning heat cycle
- Apply 414 kPa autoclave pressure, vent vacuum at 103 – 138 kPa
- Heat at 2 – 3 °C/min from room temperature to 110 ± 6°C
- Hold temperature for 30 minutes
- Raise product temperature at 2 – 3 °C/min to 182 ± 6°C
- Hold product at cure temperature for 120 minutes
- Cool to 66°C at 5°C/min prior to releasing autoclave pressure

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Technical Datasheet

Laminate Mechanical Properties

Reinforcement	7781 E-Glass	120 Aramid	285 Aramid
Tensile Strength, 0° (MPa)			
24°C Dry	372	--	558
88°C Dry	--	--	558
93°C Dry	--	--	545
88°C Wet	--	--	524
ASTM-D-638 Type 1			
Tensile Modulus, 0° (GPa)			
24°C Dry	20.6	--	30.3
88°C Dry	--	--	27.6
93°C Dry	--	--	26.2
88°C Wet	--	--	26.9
ASTM-D-638 Type 1			
Compressive Strength (MPa)			
24°C Dry	414	--	200
88°C Dry	--	--	152
93°C Dry	--	--	152
88°C Wet	--	--	124
ASTM-D-695			
Compressive Modulus (GPa)			
24°C Dry	20.6	--	22.7
88°C Dry	--	--	21.3
93°C Dry	--	--	22.0
88°C Wet	--	--	20.7
ASTM-D-695			
Flexural Strength (MPa)			
24°C Dry	758	358	345
88°C Dry	--	--	296
93°C Dry	--	--	276
88°C Wet	--	317	269
ASTM-D-790			
Flexural Modulus (GPa)			
24°C Dry	24.8	33.0	26.2
88°C Dry	--	--	23.4
93°C Dry	--	--	22.7
88°C Wet	--	22.0	24.8
ASTM-D-790			
Short Beam Shear (MPa)			
24°C Dry	47	32	39
88°C Dry	--	--	38
93°C Dry	--	--	32
88°C Wet	--	30	30
ASTM-D-2344			

Wet Condition: 2hr water boil immersion

All test data provided are typical values and not intended to be specification values. For review of critical specification tolerances, please contact a Park representative directly. Park reserves the right to change these typical values as a natural process of refining our testing equipment and techniques.