



PARK AEROSPACE CORP.

AEROSPACE COMPOSITE MATERIALS Selector Guide



Park Aerospace Corp. which develops and manufactures solution and hot-melt advanced composite materials used to produce composite structures for the global aerospace markets. Park's advanced composite materials include film adhesives (undergoing qualification) and lightning strike materials. Park offers an array of composite materials specifically designed for hand lay-up or automated fiber placement (AFP) manufacturing applications. Park's advanced composite materials are used to produce primary and secondary structures for jet engines, large and regional transport aircraft, military aircraft, Unmanned Aerial Vehicles (UAVs commonly referred to as "drones"), business jets, general aviation aircraft and rotary wing aircraft. Park also offers specialty ablative materials for rocket motors and nozzles and specially designed materials for radome applications. As a complement to Park's advanced composite materials offering, Park designs and fabricates composite parts, structures and assemblies and low volume tooling for the aerospace industry. Target markets for Park's composite parts and structures (which include Park's patented composite Sigma Strut and Alpha Strut product lines) are, among others, prototype and development aircraft, special mission aircraft, spares for legacy military and civilian aircraft and exotic spacecraft. Park's objective is to do what others are either unwilling or unable to do. When nobody else wants to do it because it is too difficult, too small or too annoying, sign us up.

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	Aircraft Primary & Secondary Structures	Interiors	High Temperature	Radomes & Antennas	Specialty (High-End Automotive, Motorsport, Marine, Wind Energy)	Ablatives
Aeroglide™ Surfacing Film	X			X	X	
CoreFix®	X					
Easycure E-710™					X	
Electroglide®	X					
E-720	X					
E-722	X					
E-746	X		X		X	
E-752-LT	X					
E-752	X					
E-761		X		X	X	
E-765	X				X	
E-766B		X				
F-502			X			X
F-554			X			X
F-555			X			X
F-557			X			X
F-562			X			X
P-600	X			X	X	
P-601				X	X	
P-650M				X	X	
P-650R	X			X	X	
P-670F		X			X	
P-670I		X			X	
PeelCote®	X				X	
RadarWave™				X		
V-303			X			
V-376			X	X		

Materials and Features	Reinforcements Product Forms	Cure Temp °C / °F	Dry Tg* °C / °F	Autoclave Cure	Vacuum Cure	Press Molding
Aeroglide™ Surfacing Film An epoxy-based composite surfacing film designed to improve the surface finish of aircraft composite parts and reduce or eliminate secondary surface finishing operations prior to painting.	Fiberglass	121 / 250 177 / 350		X	X	X
CoreFix® Disposable prepreg used for stabilizing honeycomb materials during handling and machining. Designed to be easily removed from the core without tearing or distorting the honeycomb.						
Easycure E-710™ A low-temperature cure epoxy prepreg for use in the high-end automotive, motorsport, wind energy and aerospace industries. Good for low-temperature tooling.	Fiberglass, Carbon, Aramid ----- Fabric	71 / 160 121 / 250	130 / 260	X	X	X
Electroglide® An epoxy-based composite surfacing film. Embedded metal mesh available in various weights. Designed to protect aircraft composite parts from lightning strikes.	Fiberglass	121 / 250 177 / 350		X	X	

Park's Aerospace Composite Materials

Materials and Features	Reinforcements Product Forms	Cure Temp °C / °F	Dry Tg* °C / °F	Autoclave Cure	Vacuum Cure	Press Molding
E-720 Epoxy Prepreg Modified epoxy resin system. Excellent mechanical properties after long-term high temperature exposure. Good electrical properties. Proven history in demanding aerospace applications.	Fiberglass, Quartz (including Astroquartz) ----- Fabric	177 / 350	188 / 370	X		X
E-722 Epoxy Prepreg Modified epoxy resin system. Excellent mechanical properties after long-term high temperature exposure. Good RF properties. Meets requirement of Mil-R-9300B Type I.	Fiberglass, Carbon, Aramid (including Kevlar®) ----- Fabric	177 / 350	149 / 300	X	X	X
E-746 Epoxy Prepreg Modified epoxy resin system. Excellent mechanical properties after long-term high temperature exposure. Good RF properties. Meets requirement of Mil-R-9300B Type II. Service temperatures up to 500°F after post-cure.	Fiberglass, Quartz (including Astroquartz) ----- Fabric	177 / 350	205 / 401	X		
E-752-LT Toughened Epoxy Prepreg Medium-toughened, 350°F (177°C) cure epoxy resin system with 315°F (157°C) wet Tg for primary and secondary structural applications. E-752-LT is formulated for efficient processing in high volume Automated Fiber Placement (AFP) applications manufacturing.	Fiberglass, Carbon ----- Fabric, Uni-tape	177 / 350	220 / 428	X	X	X
E-752 Epoxy Prepreg Medium-toughened, self-adhesive, 350°F cure system designed for aerospace primary and secondary structural applications. High service temperature and moisture resistance. Wet service temperature up to 250°F.	Fiberglass, Carbon ----- Fabric, Uni-tape	177 / 350	190 / 375	X	X	X
E-761 Epoxy Prepreg Self adhesive prepreg for sandwich applications. Flame retardant (per FAR25.853) with good RF properties. Wide process latitude. Wet service temperature up to 180°F.	Fiberglass, Carbon, Aramid (including Kevlar®), Spectra®, Quartz (including Astroquartz) ----- Fabric	121 / 250	122 / 252	X	X	X
E-765 Epoxy Prepreg Medium-toughened, self-adhesive epoxy for aerospace structures. Wide processing window. Wet service temperature up to 180°F.	Fiberglass, Carbon, Spectra®, Quartz (including Astroquartz) ----- Fabric, Uni-tape	127-138/ 260-280	194 / 381	X	X	X
E-766B Epoxy Prepreg Medium-toughened, low-tack epoxy. Self-adhesive prepreg for sandwich applications. Flame retardant. Controlled flow properties. Service temperature up to 160°F.	Fiberglass, Carbon, Aramid (including Kevlar®) ----- Fabric	127-138/ 260-280	100 / 212	X	X	X
F-502 Phenolic Ablative Prepreg Combines high-strength and ablative properties for demanding applications. Low thermal expansion.	Fiberglass, Carbon, Quartz (including Astroquartz) ----- Fabric, CMC / Biased Tape	121-177/ 250-350	260 / 500	X		X
F-554 Phenolic / Silica Ablative Prepreg High purity silica filled resin system coated on commercial or aerospace grade silica fabric. Combines higher strength and ablative properties for demanding applications. Low thermal expansion.	Silica ----- Fabric, CMC / Biased Tape	121-177/ 250-350	260 / 500	X		X
F-555 Phenolic / Carbon Ablative Prepreg Carbon-loaded resin system. Combines high-strength and ablative properties for demanding applications. Low thermal expansion. Also available in a low density version.	Carbon, Carbonized Rayon (including C2 and NARC) ----- Fabric, CMC / Biased Tape	121-177/ 250-350	260 / 500	X		X
F-557 Phenolic / Silica Ablative Prepreg High purity Silica filled resin system coated on commercial or aerospace grade silica fabric. Combines higher strength and ablative properties for demanding applications. Low thermal expansion.	Silica ----- Fabric, CMC / Biased Tape	121-177/ 250-350	260 / 500	X		X

Park's Aerospace Composite Materials

Materials and Features	Reinforcements	Cure Temp	Dry Tg*	Autoclave Cure	Vacuum Cure	Press Molding
	Product Forms	°C / °F	°C / °F			
F-562 Modified Phenolic Ablative Prepreg Elastomer modified resin system coated on silica or carbonized rayon.	Silica, Carbonized Rayon (including C2 and NARC) ----- Fabric	121-177/ 250-350	260 / 500	X		X
P-600 Polyester Prepreg General purpose polyester resin system. Non-styrenated / Low VOC. Good alternative to wet-layup processing.	Fiberglass ----- Fabric	82-121/ 180-250	71 / 160	X	X	X
P-601 Polyester Prepreg Polyester resin system designed for Woven roving applications. Non-styrenated / Low VOC. Good alternative to wet-layup processing.	Fiberglass (18 oz woven roving) ----- Fabric	82-121/ 180-250	71 / 160	X	X	X
P-650M Polyester Prepreg Modified diallylphthalate resin system. Excellent wet electrical properties. Non-styrenated / Low VOC.	Fiberglass ----- Fabric	121-149/ 250-300	121 / 250	X	X	X
P-650R Polyester Prepreg Designed for optical clarity. Good mechanical and electrical properties. Non-styrenated / Low VOC.	Fiberglass ----- Fabric	121-149/ 250-300	121 / 250	X	X	X
P-670F Polyester Prepreg High temperature service. Flame retardant. Excellent electrical and mechanical properties. Non-styrenated / Low VOC.	Fiberglass ----- Fabric	121-149/ 250-300	121 / 250	X	X	X
P-670I Polyester Prepreg High temperature service. Flame retardant. Excellent electrical and mechanical properties. Non-styrenated / Low VOC Antimony free.	Fiberglass ----- Fabric	121-149/ 250-300	121 / 250	X	X	X
RadarWave™ Provides cost effective technical alternatives to the esoteric and higher cost materials traditionally used to manufacture advanced radome systems. Available in various Park High Performance Resin Systems.	Fiberglass, Quartz ----- Fabric	*Refer to Resin System Data Sheet				
V-303 Non-MDA Polyimide Prepreg Non-MDA condensation polyimide resin system. Very high service temperature	Fiberglass, Quartz (including Astroquartz), Carbon ----- Fabric	177 / 350 plus 550 °F PC	316 / 600	X		X
V-376 Cyanate Ester Excellent RF properties (low loss). Low moisture absorption. Self adhesive prepreg for sandwich applications. Ideal alternative to BMI and polyimide systems.	Fiberglass, Quartz (including Astroquartz) ----- Fabric	177 / 350	204 / 400	X		X



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