

Product Selector Guide

Resin System	Description	Outlife at 70°F (Days)	Initial Cure Temp (°F)	Initial Cure Time (Hours)	Post Cure Option	Max Tg Onset* (°F – DMA)	Max Tg Peak* (°F – DMA)	Toughened	Standard Process	Typical Application Areas
TOOLING PREPREG — Low Temperature Cure										
LTC102	Epoxy Carbon/Glass Tooling	3	85 – 150	45 – 5	Yes	417	450	No	Autoclave	Commercial low temp tooling
LTC210	Epoxy Carbon/Glass Tooling	4	115 – 160	40 – 4	Yes	396	430	No	Autoclave	Commercial low temp tooling
LTC216-3	Epoxy Carbon/Glass Tooling	8	115 – 160	50 – 5	Yes	424	468	No	Autoclave	Aerospace low temp tooling
LTC410	Epoxy Long Outlife Tooling	21	150 – 175	16 – 4	Yes	378	424	Yes	Autoclave	Long outlife, toughened, low temp Aerospace tooling
LTC400	Epoxy Long Outlife Tooling	30	150 – 175	20 – 6	Yes	405	442	No	Autoclave	Extra long outlife, low temp Aerospace tooling
OTS65	Epoxy Oven Cure Tooling	Up to 21	150 – 195	Consult Data Sheet	Yes	264	289	No	Oven	Out of Autoclave tooling & structures
BMI-1SC	BMI Tooling & Component	30	365	2	Yes	662	671	No	Autoclave	High temp, high durability Aerospace Tooling
ADHESIVE FILM										
MTFA500	Adhesive Film	30	175 – 250	16 – 1	No	286	302	Yes	Autoclave	General purpose film adhesive
VTFA400	Adhesive Film	21	150 – 250	16 – 1	No	275	297	Yes	Autoclave	General purpose film adhesive with versatile cure
MTFA400	Adhesive Film, High Temperature Service	30	175 – 300	16 – 1	Yes	338	374	Yes	Autoclave	General purpose, higher service temp
COMPONENT PREPREG — Low to Medium Temperature Cure										
LTC250-2XL	Low Temp Cure	5	120 – 165	40 – 4	Yes	266	291	Yes	Autoclave/Oven	Lower temp cure with good toughness and visual clarity. Excellent for low cost prototypes
MTC510	Med Temp Cure, Cosmetic & General Purpose	30	175 – 250	16 – 1	No	268	298	Yes	Autoclave	General purpose system also with excellent optical clarity for cosmetic carbon parts
MTC275	Med Temp Cure, Out of Autoclave	30	175 – 250	16 – 1	No	250	275	Yes	Autoclave/Oven	General purpose system also with excellent optical clarity for cosmetic carbon parts. Can process OOA
MTC475	Med Temp Cure, High Service Cosmetic	30	175 – 250	16 – 1	Yes	374	403	Yes	Autoclave	Higher service temp system with good visual finish
MTC811	Med Temp Cure, Core Bondable	60	195 – 250	14 – 1	No	250	262	Yes	Autoclave	Highly toughened system for structures requiring good damage tolerance and impact performance
MTC400	Med Temp Cure, High Temp Structural	30	175 – 275	16 – 1	Yes	441	460	Yes	Autoclave	High service temp (typically up to 356°F) components in Motorsport, Automotive and Aerospace. 320°F wet Tg
MTC400-1	Med Temp Cure, High Temp Structural	30	175 – 275	16 – 1	Yes	405	435	Yes	Autoclave	Higher service temp (typically up to 302°F) structural components in Automotive and Motorsport
MTC412	Med Temp Cure, High Temp Service OOA	28	175 – 300	16 – 1	Yes	338	374	Yes	Autoclave/Oven	High service temp and Out of Autoclave processing typically for Aerospace applications
COMPONENT PREPREG — Versatile Temperature Cure										
VTC401	General Purpose, Fast Cure Component Core Bondable	21	150 – 285	16 – 15 mins	No	266	282	Yes	Autoclave/Oven/Press	Versatile system. Low temp cure on lower cost large structures, but also with high temp "snap" cure capability
VTC410	General Purpose, Fast Cure Component	21	150 – 285	16 – 15 mins	Yes	374	403	Yes	Autoclave/Oven/Press	Versatile system. Low temp cure for lower cost, larger structure with increased service temperature
VTC212	Oven Component System	21	150 – 250	16 – 1	Yes	275	284	Yes	Oven	Versatile system with good Out of Autoclave processing for high quality surface finishes
OPS75	Oven Panel System	Up to 21	150 – 265	Consult Data Sheet	No	284	320	Yes	Autoclave/Oven	Automotive body panels with excellent retained surface finish once environmentally cycled
APS75	Autoclave Panel System	21	150 – 265	Consult Data Sheet	Yes	338	376	Yes	Autoclave	Automotive body panels with higher service temp
COMPONENT PREPREG — High Service Temperature										
HTC400	High Temp Cure, High Service Temp	30	355	2	No	505	522	Yes	Autoclave	High service temp Automotive and Aerospace structures
CEL100-1	Cyanate Ester, Low Temp Cure	2	160 – 195	22 – 6	Yes	565	592	No	Autoclave	High service temp with a required postcure, suitable for Automotive components
CEM100	Cyanate Ester, Very High Service Temp	21	250 – 275	3 – 2	Yes	653	752	No	Autoclave	High service temp Automotive and Space components with low-outgassing requirements
CEM160	Cyanate Ester, High Service Temp, Available on UD reinforcements	Up to 21	250 – 275	3 – 2	Yes	527	572	No	Autoclave	High service temp Automotive and Space components with low-outgassing requirements
COMPONENT PREPREG — Flame Retardant										
FRVC411	Flame Retardant, Core Bondable	21	150 – 285	16 – 15 mins	Yes	311	349	Yes	Autoclave/Oven/Press	Flame retardant (can meet UL94 V0) Aerospace and Automotive structures
MTC510-1FRB	Flame Retardant, Med Temp Cure	30	175 – 250	16 – 1	No	266	298	Yes	Autoclave	General purpose flame retardant system
PS200	Flame Retardant, Bio-based	21	210 – 265	3 – 1	Consult SHD	536	626	No	Autoclave/Oven/Press – Contact SHD	Bio-derived, highly flame retardant system for fire containment applications such as battery enclosures
FR308	Flame Retardant, Bio-based	21	210 – 265	3 – 1	Consult SHD	288	358**	No	Autoclave/Oven/Press – Contact SHD	Bio-derived, highly flame retardant system for interior structures, typically to replace phenolic resins

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* Tg and service temperatures quoted in this Product Selector Guide are maximum values, possibly achieved after a post cure cycle depending on the product. Please consult Technical Data Sheets for details.

** FR308 can potentially reach a Peak Tan δ Tg above 450°F after high temperature post-cure cycles.

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