

Product Selector Guide

Resin System	Description	Outlife at 20°C (Days)	Initial Cure Temp (°C)	Initial Cure Time (Hours)	Post Cure Option	Max Tg Onset* (°C – DMA)	Max Tg Peak* (°C – DMA)	Toughened	Standard Process	Typical Application Areas
TOOLING PREPREG — Low Temperature Cure										
LTC102	Epoxy Carbon/Glass Tooling	3	30 – 65	45 – 5	Yes	214	232	No	Autoclave	Commercial low temp tooling
LTC210	Epoxy Carbon/Glass Tooling	4	45 – 70	40 – 4	Yes	202	221	No	Autoclave	Commercial low temp tooling
LTB300	Epoxy Carbon/Glass Tooling – 30% bio-based	2	45 – 60	12 – 6	Yes	181	205	No	Autoclave	Commercial low temp epoxy tooling with 30% bio content
LTB310-1	Epoxy Carbon/Glass Tooling – 30% bio-based	4	45 – 70	40 – 4	Yes	201	230	No	Autoclave	Commercial low temp epoxy tooling with 30% bio content
LTC216-3	Epoxy Carbon/Glass Tooling	8	45 – 70	50 – 5	Yes	218	242	No	Autoclave	Aerospace low temp tooling
LTC410	Epoxy Long Outlife Tooling	21	65 – 80	16 – 4	Yes	192	218	Yes	Autoclave	Long outlife, toughened, low temp Aerospace tooling
LTC400	Epoxy Long Outlife Tooling	30	65 – 80	20 – 6	Yes	207	228	No	Autoclave	Extra long outlife, low temp Aerospace tooling
OTS65	Epoxy Oven Cure Tooling	Up to 21	65 – 90	Consult Data Sheet	Yes	129	143	No	Oven	Out of Autoclave tooling & structures
BMI-1SC	BMI Tooling & Component	30	185	2	Yes	350	355	No	Autoclave	High temp, high durability Aerospace Tooling
ADHESIVE FILM										
MTFA500	Adhesive Film	30	80 – 120	16 – 1	No	141	150	Yes	Autoclave	General purpose film adhesive
VTFA400	Adhesive Film	21	65 – 120	16 – 1	No	135	147	Yes	Autoclave	General purpose film adhesive with versatile cure
MTFA400	Adhesive Film, High Temperature Service	30	80 – 150	16 – 1	Yes	170	190	Yes	Autoclave	General purpose, higher service temp
COMPONENT PREPREG — Low to Medium Temperature Cure										
LTC250-2XL	Low Temp Cure	5	50 – 75	40 – 4	Yes	130	144	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	80 – 120	16 – 1	No	131	148	Yes	Autoclave	General purpose system also with excellent optical clarity for cosmetic carbon parts. Low viscosity version available
MTE500	Next Generation Multi-Purpose Component System	60	120	1	No	140	155	Yes	Autoclave	General purpose system with optimised handling characteristics for the production of the highest quality visual parts
MTC275	Med Temp Cure, Out of Autoclave	30	80 – 120	16 – 1	No	121	135	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	80 – 120	16 – 1	Yes	190	206	Yes	Autoclave	Higher service temp system with good visual finish
MTC811	Med Temp Cure, Core Bondable	60	90 – 120	14 – 1	No	121	128	Yes	Autoclave	Highly toughened system for structures requiring good damage tolerance and impact performance
MTC400	Med Temp Cure, High Temp Structural	30	80 – 135	16 – 1	Yes	227	238	Yes	Autoclave	High service temp (typically up to 180°C) components in Motorsport, Automotive and Aerospace. 160°C wet Tg
MTC400-1	Med Temp Cure, High Temp Structural	30	80 – 135	16 – 1	Yes	207	224	Yes	Autoclave/ Oven/Press	Higher service temp (typically up to 150°C) structural components in Automotive and Motorsport
MTC412	Med Temp Cure, High Temp Service OOA	30	80 – 150	16 – 1	Yes	170	190	Yes	Autoclave/Oven	High service temp and Out of Autoclave processing typically for Aerospace applications
MTB350	Med Temp Cure – 30% Bio-based	6 months	80 – 140	16 – 15 mins	Yes	171	190	Yes	Autoclave	Multi-purpose 30% bio content system with exceptional outlife. For use with all fibre types, including flax
COMPONENT PREPREG — Versatile Temperature Cure										
VTC401	General Purpose, Fast Cure Component Core Bondable	21	65 – 140	16 – 15 mins	No	130	139	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	65 – 140	16 – 15 mins	Yes	190	206	Yes	Autoclave/ Oven/Press	Versatile system. Low temp cure for lower cost, larger structure with increased service temperature
VTC212	Surfacing System, Out of Autoclave	21	65 – 120	16 – 1	Yes	135	140	Yes	Oven	Versatile system with good Out of Autoclave processing for high quality surface finishes
OPS75	Oven Panel System	Up to 21	65 – 130	Consult Data Sheet	No	140	160	Yes	Autoclave/Oven	Automotive body panels with excellent retained surface finish once environmentally cycled
APS75	Autoclave Panel System	21	65 – 130	Consult Data Sheet	Yes	170	191	Yes	Autoclave	Automotive body panels with higher service temp
COMPONENT PREPREG — High Service Temperature										
HTC400	High Temp Cure, High Service Temp	30	180	2	No	263	272	Yes	Autoclave	High service temp Automotive and Aerospace structures
CEM100	Cyanate Ester, Very High Service Temp	21	120 – 135	3 – 2	Yes	345	400	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	120 – 135	3 – 2	Yes	275	300	No	Autoclave	High service temp Automotive and Space components with low-outgassing requirements
COMPONENT PREPREG — Flame Retardant										
FRVC411	Flame Retardant, Core Bondable	21	65 – 140	16 – 15 mins	Yes	155	176	Yes	Autoclave/ Oven/Press	Flame retardant for Aerospace and Automotive structures
MTC510FRB	Flame Retardant, Med Temp Cure	30	80 – 120	16 – 1	No	130	148	Yes	Autoclave	General purpose flame retardant system
PS200	Flame Retardant, Bio-based	21	100 – 130	3 – 1	Consult SHD	280	330	No	Autoclave/ Press – Contact SHD	Bio-derived, highly flame retardant system for fire containment applications such as battery enclosures
FR308	Flame Retardant, Bio-based	21	100 – 130	3 – 1	Consult SHD	142	181**	No	Autoclave/ 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  $\theta$  Tg above 232°C after high temperature post-cure cycles.

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