

High Performance Composites without Compromise



Toray Advanced Composites is a trusted leader in developing and delivering composite materials for **Formula 1**, **motorsport**, and **high-performance automotive applications**. With over 30 years of innovation, we engineer lightweight, durable composites designed to meet the extreme demands of the track and the road. Our evolving product portfolio delivers the strength, precision, and performance that top teams and manufacturers rely on to stay ahead.

Total System Solutions

Component Prepreg
Class-A Surface Films
Adhesive Bonding Films
Composite Tooling

Structural | Visual | High Temperature
▶ Carbon fabrics from 47gsm to 990gsm
▶ Uni-directional tapes from 70gsm to 500 gsm

Suitable for a Variety of Processing

AFP/ATL | Compression Molding | Rapid Cure |
Autoclave | Hand Lay-up

Trusted Partner to Global Automotive Leaders

A proven track record of directly supplying Tier 1 suppliers and OEMs across the automotive industry worldwide.

Exceptional Material Quality

Manufactured to precise tolerances with consistently high levels of impregnation, ensuring reliability and performance.

Reliable Global Supply Chain

With vertically integrated operations and manufacturing facilities in North America, Europe, and Asia, Toray offers unmatched capacity, reach, and technological capability.

Industry-Leading Technical Support

Benefit from unparalleled expertise and responsive service from our dedicated technical support team.

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‘TORAY’

Toray Advanced Composites

Component Prepreg

	Resin Matrix	Applications	Neat Resin Dry T _g Onset	Cure Time / Temperature	Key Characteristics	Out Life # Days	Storage at -18°C (< 0°F) # Months	High Performance Automotive	Motorsport
TC203	Epoxy	Visual	112°C (234°F)	120°C (248°C) 1 hour	<ul style="list-style-type: none">▶ Resin cures clear – ideal for exposed weave applications▶ Optimized handling	30	12	✔	
E732	Epoxy	Snap cure	170°C (338°F)	160°C (230°F) 4 minutes	<ul style="list-style-type: none">▶ Hot-in hot-out press processing▶ Short cure cycles 120–160°C (248–320°F)	21	6	✔	
E745	Epoxy	Impact structures	118°C (244°F)	135°C (275°F) 60 minutes	<ul style="list-style-type: none">▶ High toughness and impact properties	60	12		✔
TC750	Epoxy	Structrual	160°C (320°F)	180°C (356°F) 2 hours	<ul style="list-style-type: none">▶ Versatile cure schedules—80°C (176°F) to 180°C (356°F)▶ Toughened system with good balance of mechanical properties▶ Optimized tack and drape▶ Can be stored at 5°C (41°F) for 12 months	60	12	✔	✔
TC346	Epoxy	High temperature / structural	221°C (430°F)	180°C (356°F) 2 hours post cure 200°C (392°F)	<ul style="list-style-type: none">▶ Structural values retained at high temperatures▶ High temperature resistance▶ UL94 V0 flame retardancy at 2 mm thickness (200g 2x2 Twill HM63 12K 42% RC)	21	12	✔	✔
TC350-1	Epoxy	High temperature / structural	191°C (376°F)	177°C (350°F) 2 hours	<ul style="list-style-type: none">▶ Industry standard 177°C epoxy▶ Good hot/wet properties▶ Good CAI properties 221 MPa (32 ksi)	45	12	✔	✔
E721-FR	Epoxy	Fire Resistant	120°C (248°F)	120°C (248°F) 60 minutes	<ul style="list-style-type: none">▶ Direct lamination to honeycomb without the use of resin film▶ Fire resistant under FAR 25.853 Appendix F material test criteria (ii) and tested to UL94	60	12		✔
Cetex® TC1000	PEI	Structrual / Impact	217°C (423°F)	Processing Temperature 320–350°C (608–662°F)	<ul style="list-style-type: none">▶ Excellent FST performance (OSU < 15/15)▶ Moderate solvent resistance▶ Machinable from billet stock	n/a	n/a	✔	✔

Toray MicroPly™ Ancillaries

TC310	Epoxy	Film adhesive	157°C (315°F)	177°C (350°F)—2 hours	<ul style="list-style-type: none">▶ Ideal composite bonding film adhesive	30	12	✔	✔
TC248SF	Epoxy	Surfacing film	112°C (233°F)	120°C-135°C (248°F-275°F)	<ul style="list-style-type: none">▶ Smooth, pin-free, sandable surface with minimum preparation for painting▶ Excellent surface finish from autoclave processing▶ Good tack and drape	30	12	✔	✔

Toray AmberTool® Prepreg

HX40	Epoxy	Composite Tooling	203°C (397°F)	65°C (149°F) 12 hours	<ul style="list-style-type: none">▶ Extended out life for larger scale tooling applications▶ High temperature end use performance▶ Versatile curing options 50–75°C (122–167°F)	8	12	✔	✔
HX56	Epoxy	Composite Tooling	185°C (365°F)	55°C (131°F) 6 hours	<ul style="list-style-type: none">▶ Fast cure and excellent surface finish▶ Improved handleability▶ Available in carbon reinforcements from 205gsm to 990gsm▶ Excellent drape for complex shapes▶ 180°C (356°F) end use temperature	60 hours	6	✔	✔

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