

## **Quantum Materials Summary**

A global portfolio dedicated to innovation and sustainability



## Iyondellbasell Advancing Possible

## **PRODUCT INFORMATION**

Material Reference	Fiber% w/w	Fiber Length (inches / mm) and Type	Description	Features / Benefits / Applications			
Vinyl Ester - Fiberglass E Grade							
QC-8560*	60%	0.5 / 13 E glass	Higher heat resistant Vinyl Ester	High temp auto, industrial. Lower cost Aero / Mil			
QC-8700	63%	1 / 25 E glass	Increased temperature resistant over the QC-8800	General purpose structural, prosthetics, marine, automotive, industrial, safety. Color and flame retardant versions available.			
Vinyl Ester - Carbon Fiber - PAN based std modulus							
AMC-8590*	53%	1 / 25 12K	Workhorse of AMC carbon fiber offerings	Structural automotive, inner panels, brackets, etc. Sporting goods, golf clubs, bicycle components, medical.			
AMC-8593*	50%	1 / 25 3K	Offering highest properties and lowest COV	<ul> <li>Designed for structural applications requiring high stiffness and high strength, particularly open- and filled- hole tension and compression.</li> </ul>			
Epoxy - Fiberglass E grade							
Lytex 9063*	63%	0.5 / 13 E glass	<i>Lytex</i> 9063 is specified by numerous aero and military OEMs. Short cure time for complex geometry molded parts solutions.	Aerospace secondary and tertiary components, fairings, brackets, etc. Industrial, high temperature / high pressure. Suitable for molding thick cross sections (>3"). Flame retardant & low density versions available.			
Epoxy - Carbon Fiber - PAN based std modulus							
<i>Lytex</i> 4149	55%	1 / 25 3K	<i>Lytex</i> 4149 is specified by numerous aero and military OEMs	Aerospace secondary and tertiary structures, components, fairings, brackets, panels. Advantages of <i>Lytex</i> resin system with light weight and stiffness of carbon fiber. Flame retardant version available.			

Material Reference	SG	Flexural Modulus D-790/ ISO 14125 Machined	Flexural Strength D-790/ ISO 14125 Machined	Tensile Modulus D-638 / ISO 527-4 D-3039 Machined	Tensile Strength D-638/ ISO 527-4 D-3039 Machined	Glass Transition D-7028/ ISO 11357-2 Tan Delta	
	g/cc	GPa	MPa	GPa	MPa	F°	C°
Vinyl Ester - Fiberglass	E Grade						
QC-8560	1.89	20	424	21	210	329	165
QC-85560 EU	1.81	18	506	17	264	295	146
QC-8700	1.85	21	483	20	242	260	127
Vinyl Ester - Carbon Fib	er - PAN based st	d modulus					
AMC-8590	1.48	28	448	37	162	288	142
AMC-85590 EU	1.48	25	393	27	152	291	144
AMC-8593	1.47	31	504	36	290	288	142
AMC-85593 EU	1.46	30	524	31	281	304	151
Epoxy - Fiberglass E gra	ade						
Lytex 9063*	1.82	18	407	18	193	329	165
Epoxy - Carbon Fiber - F	PAN based std mo	odulus					
Lytex 4149	1.48	32	531	35	221	329	165
Lytex 64690 EU**	1.46	25	370	33	192	221	105
Lytex 64693 EU**	1.45	25	459	27	285	221	105

\*Global grades available with both European and North American production (European Grades have additional nomenclature to designate EU grades with data supplied form North American supplied material). \*\*Available for Autoclave Technology

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