

**HOW TO USE THE CHART**

The chart has been arranged to allow easy selection of the best matrix for a prepreg application. Decide on the maximum dry Tg required for the application. This narrows the choice of matrices from which a more detailed inspection of the desired properties should be made. Specific matrix information is provided on individual data sheets, available from Hexcel on request.

**Notes**  
**Dry Tg Onset** - the temperature at which glass transition starts, representing the initial drop in modulus, E', of the component, as measured directly after curing.  
**Flow** - a measure of matrix viscosity i.e. a low flow matrix has a high viscosity.  
**Toughness** - the ability to resist delamination on impact.

HexPly® Resin Systems	Dry Tg Onset (DMA) °C (°F)	Typical Cure Cycle		Cure Process		Self Adhesive	Flow			Toughness			Self Extinguishing	Outlife at Room Temperature (days)	Storage at -18°C (0°F) (months)	Standard Prepreg Forms				Typical Applications	HexPly® Resin Systems
		Temp °C (°F)	Time (mins)	Autoclave/ Press	Vacuum Only		Controlled	High		High	Med	Low				UD Tape	Fabric	Tow Preg	Split Tape		
<b>Epoxy</b>																					
ES15	85 (185)	120 (250)	9	X				X				X		5	6	X	X			Ski/Snowboards/Sports Goods - Transparent Resin System	ES15
M44	90 (195)	140 (285)	13	X	X			X				X		21	12	X				Tennis Rackets/Golf Shafts/Fishing Rods/Sports Goods	M44
M34	90 (195)	75 (165)	480	X	X	X		X				X		10	12		X			Railway Fairings/Structures/Marine/General Industrial	M34
EF01	95 (200)	120 (250)	15	X	X	X		X				X		14	14	X	X			Bicycle Wheels/Sports Goods/General Industrial/Snowboards	EF01
M32	100 (210)	120 (250)	9	X		X		X					X	7	6	X	X			Ski/Snowboard/Industrial	M32
M26T	115 (235)	125 (255)	90	X	X	X		X				X		30	12	X	X			Floor Panels/Fairings/Sandwich Structures	M26T
M9.1F/M9.6F	125 (255)	120 (250)	30	X	X				X				X	42	12	X	X			Large Industrial Components/Wind Turbine Blades	M9.1F/M9.6F
M10	125 (255)	120 (250)	60	X	X				X				X	60	12	X	X			General Industrial/Wind Turbine Blades/Leaf Springs/Boat Hulls	M10
EH04	125 (255)	130 (265)	8	X	X				X				X	14	12	X	X			Bike Components/Golf Shafts/Fishing Rods/Kayak Paddles/Hockey Sticks & Blades	EH04
M35-4	135 (275)	135 (275)	90	X	X			X				X		60	12	X	X			UAV's, Motorsport Components - Flexible Curing Matrix, Tg of 200°C after post-cure	M35-4
M76	135 (275)	135 (275)	180	X		X		X				X		21	12	X	X			Motorsport/Space Applications - Flexible Curing Matrix	M76
M47 (1947)	145 (295)	135 (275)	90	X				X				X		30	12	X	X			Automotive Parts, eg Bonnets & Body Panels - Excellent Surface Finish	M47 (1947)
913	150 (300)	125 (255)	60	X				X					X	30	12	X	X			Aerospace Structural Components/Fin Box/Belly Fairings/Helicopter Blades	913
M20	150 (300)	130 (265)	120	X	X			X					X	30	12	X	X			Aerospace Composite Repair/Motorsport Components	M20
8551-7	155 (315)	180 (350)	120	X	X			X				X		30	12	X	X	X	X	Structural Applications Requiring Extreme Damage Resistance	8551-7
M73	185 (365)	180 (350)	360	X				X				X		10	12	X	X			Aerospace Primary & Secondary Structures/Space Applications	M73
M74	190 (375)	180 (350)	120	X					X				X	10	12	X	X	X		Aerospace Structural Components/Critical Space Structures	M74
M21	195 (385)	180 (350)	120	X				X				X		30	12	X	X			Aerospace Primary Structures	M21
8552	195 (385)	180 (350)	120	X	X			X					X	21	12	X	X	X	X	Aerospace Structural Parts/Emppennage/Fighter Wings	8552
M18	200 (390)	180 (350)	120	X				X					X	30	12	X	X	X		Space Applications/Antennae/Solar Panels	M18
M18/1	200 (390)	180 (350)	120	X				X				X		30	12		X			Helicopter Structural Parts	M18/1
M36	200 (390)	180 (350)	120	X	X			X					X	14	10	Heavy Weight Films for RFI				Aerospace Structural Components - Resin Film Infusion	M36
922-1	210 (410)	180 (350)	120	X					X					10	12	X	X			Engine/Nacelle Structures - High Service Temperature	922-1

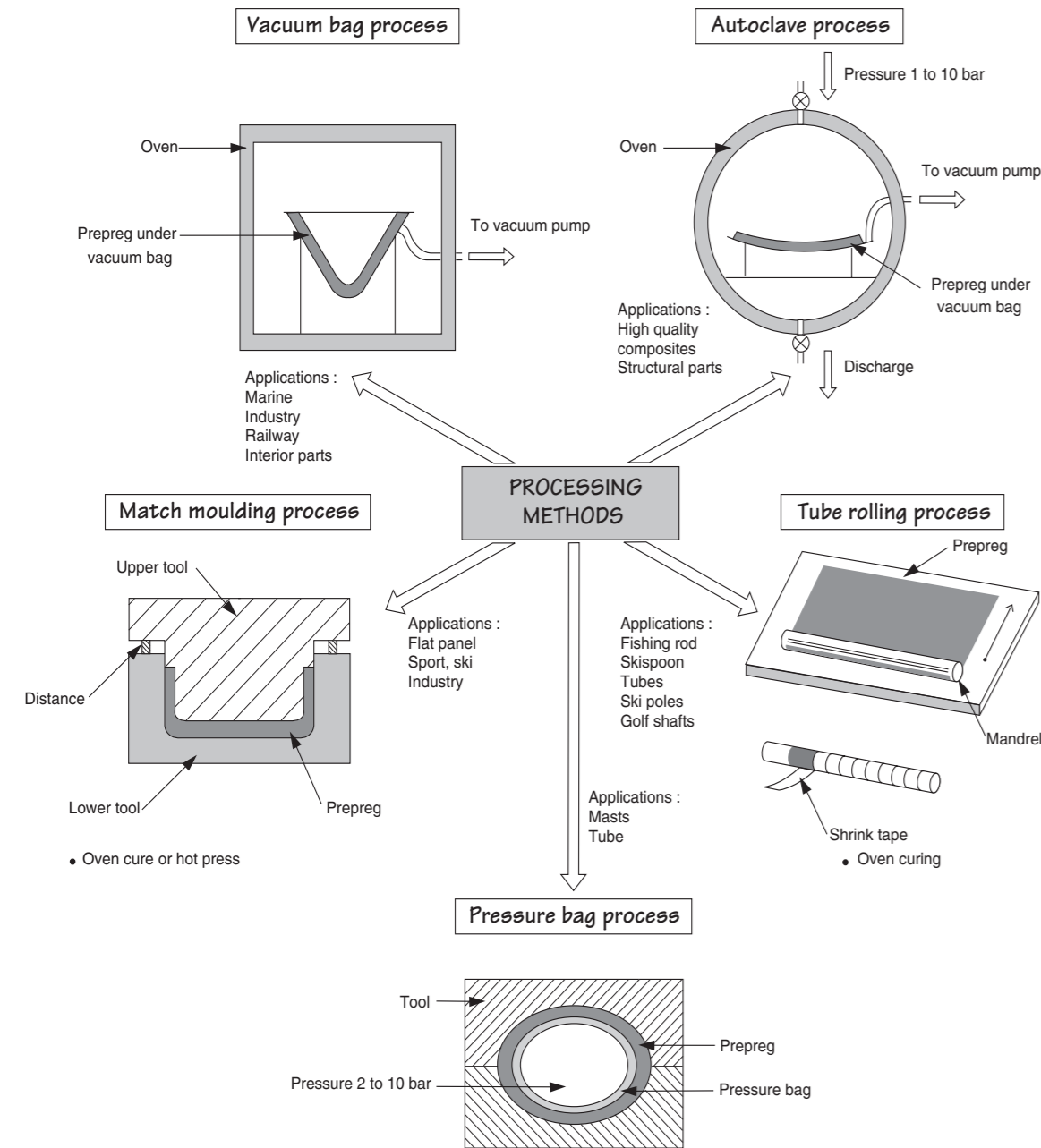
<b>Phenolic</b>																					
HT93	[80 (175) in service]	125 (255)	120	X		X		X				X	X	30	14		X			Aircraft Interior Panels/Partitions (Low FST)	HT93
M41	[80 (175) in service]	135 (275)	30	X		X		X				X	X	30	12		X			Aircraft Interior Panels/Partitions/Crush Core Process (Low FST)	M41
200	[200 (390) in service]	150 (300)	60	X		X		X				X	X	30	12		X			Fire Proof Panels & Components	200

<b>BMI</b>																					
F655	290 (550)	190 (375)	240+PC	X				X				X		30	12	X	X			High Temperature Primary/Secondary Structures/Engine Components Toughened	F655
F650	315 (600)	190 (375)	240+PC	Autoclave					X			X	X	30	12	X	X	X	X	High Temperature Primary/Secondary Structures/Engine Components	F650

<b>Cyanates</b>																					
954-6	145 (295)	120 (250)	180	X				X				X		14	6	X	X			Satellite Antennae/Solar Array/Support Structures/Radomes	954-6
996	165 (330)	180 (350)	120	X					X			X		14	6	X	X			Satellite Antennae/Solar Array/Support Structures	996
954-3A	195 (385)	180 (350)	120	X	X			X				X		14	12	X	X			Satellite Antennae/Solar Array/Support Structures/Radomes	954-3A
954-3	205 (400)	180 (350)	120	X					X			X		14	12	X	X		X	Satellite Antennae/Solar Array/Support Structures/Radomes	954-3



TYPICAL PREPREG PROCESSING TECHNIQUES



**Important**

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Publication FTU064e (June 2006)

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