



HexWeb® Honeycomb

- for Motorsport and Performance Cars

This guide has been compiled to assist with the selection of the best type of honeycomb for a particular application. More detailed information is included in the individual product data sheets, available on request.

METALLIC

Product type	Strength	Stiffness	Max Service Temp °C	Thermal Conductivity/ Characteristics	Product Form	Density Range kg/m³	Recommended Applications	Treatment Options	Environmental Resistance
					Density Range kg/m³				
CR111 Spec Aerospace Grade Aluminium Honeycomb	High	High	175	High	Microcell	104 to 198	Air directionalisation	Chromated	Good
					Rigicell	168 to 880	High load areas		
					Flexcore	34 to 128	Complex curvatures		
ACG Commercial Grade Aluminium Honeycomb	High	High	175	High	Hexagonal cell	34 to 192	High performance structural + energy absorption	CR-PAA treated and primed	Excellent
					Hexagonal cell	29 to 83	Low performance structural	CRF (Chrome Free)	

NON-METALLIC

Product type	Strength	Stiffness	Max Service Temp °C	Thermal Conductivity/ Characteristics	Product Form	Density Range kg/m³	Recommended Applications	Environmental Resistance
					Density Range kg/m³			
HRH-78 Commercial Grade Phenolic Dipped Aramid Core	High	Moderate	175	Low	Hexagonal cell	29 to 80	Structural	Excellent
					OX cell	29 to 64	Single curvature	
					Flexcore	40 to 88	Compound curvature	
HRH-10 Aerospace Grade Phenolic Dipped Aramid Core	High	Moderate	175	Low	Hexagonal cell	28 to 96	Structural	Excellent
					OX cell	Contact Hexcel	Single curvature	
HRH-36 Aerospace Grade Phenolic Dipped Core	High	High	175	Low	Flexcore	Contact Hexcel	Compound curvature	Excellent





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Redux® Adhesives

- for Motorsport and Performance Cars

This guide has been compiled to assist with the selection of the best product for an adhesive application. More detailed information is included in the individual product data sheets, available on request.

Redux® Adhesive	Maximum Operating Temperature °C	Key Features	Cure Cycle		Associated Products		
			Time (minutes)	Temperature °C	Redux Primer	Redux Foaming Film	
Epoxy Film							
609	100	<ul style="list-style-type: none"> ● Cure cycle flexibility ● Suitable for a wide range of industrial bonding 	60	120	112	212 NA 206-NA High foaming ratio	
335	90	<ul style="list-style-type: none"> ● Outstanding peel performance ● Enhanced sub-zero properties ● Optimum co-cure with 120°C curing prepregs 	60	120	112	212-NA 206-NA High foaming ratio	
641	150 long periods 175 short periods	<ul style="list-style-type: none"> ● Excellent mechanical performance to 150°C ● High peel performance 	60	175	122	219/2-NA 219/3-NA Low exotherm for thicker sections	
BMI Film							
HP655	232	<ul style="list-style-type: none"> ● High fracture toughness ● High shear strength ● Good peel strength 	240	191 + post cure	655P		
Foaming Film							
206NA	100	<ul style="list-style-type: none"> ● High foaming ratio 	60	120	112		
212NA	100	<ul style="list-style-type: none"> ● Foaming film 	60	120	112		
219/2NA	175	<ul style="list-style-type: none"> ● Foaming film 	60	175	119, 122		
219/3NA	175	<ul style="list-style-type: none"> ● Foaming film ● Low exotherm for thick sections 	60	190	119, 122		





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HexPly® Prepregs

- for Motorsport and Performance Cars

This guide has been compiled to assist with the selection of the best matrix for a prepreg application. More detailed information is included in the individual product data sheets, available on request.

HexPly® Resin Systems	Dry Tg Onset (DMA) °C (°F)	Typical Cure Cycle		Cure Process		Self Adhesive	Flow			Toughness			Self-Extinguishing	Outlife at Room Temp (days)	Storage at -18°C (0°F) (months)	Standard Prepreg Form		
		Temp °C (°F)	Time (mins)	Autoclave/ Press	Vacuum Only		Controlled	High	High	Med	Low	UD Tape				Fabric	Tow Preg	Split Tape

Epoxy

M10	125 (255)	120 (250)	60	X	X			X		X				60	12	X	X		
M35-4	135 (275)	135 (275)	90	X	X		X		X					60	12	X	X		
M47	145 (295)	135 (275)	90	X			X			X				30	12	X	X		
M48	201 (394)	180 (356)	120	X					X					30	12	X	X		
M49	120 (250)	120 (250)	90	X	X				X					30	12	X	X		

Phenolic

200	(200 (390) in service)	150 (300)	60	X			X			X				30	12		X		
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BMI

F655	290 (550)	190 (375)	240 + PC	X			X			X				30	12	X	X		
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HexPly® Prepregs

- for Motorsport and Performance Cars

HexPly® Resin Systems	Benefits	Area of Use
Epoxy		
M10	<ul style="list-style-type: none"> ● Good outlife ● Easy processability 	<ul style="list-style-type: none"> ● Structural parts and components
M35-4	<ul style="list-style-type: none"> ● High toughness ● Excellent mechanical properties ● High temperature properties ● Flexible cure 	<ul style="list-style-type: none"> ● Bodywork and components/chassis
M47	<ul style="list-style-type: none"> ● Good toughness ● Excellent temperature properties ● Excellent surface finish 	<ul style="list-style-type: none"> ● Bodywork and components/chassis
M48	<ul style="list-style-type: none"> ● Outstanding toughness and damage tolerance at high temperatures 	<ul style="list-style-type: none"> ● Chassis and rear crash structure/High service temperature components
M49	<ul style="list-style-type: none"> ● High Toughness ● Excellent self adhesive properties on A1 honeycomb ● Excellent surface finish ● Vacuum bag processable 	<ul style="list-style-type: none"> ● Bodywork and components/chassis
Phenolic		
200	<ul style="list-style-type: none"> ● Ablative phenolic matrix for firewall protection 	<ul style="list-style-type: none"> ● Fire proof components
BMI		
F655	<ul style="list-style-type: none"> ● Superior toughness at very high service temperatures (up to 200°C) 	<ul style="list-style-type: none"> ● Specialist applications such as gearboxes

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HexFlow® RTM Resins

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This guide has been compiled to assist with the selection of the best type of resin transfer moulding system for a particular application. More detailed information is included in the individual product data sheets, available on request.

Resin System	Max Service Temp. (dry) °C (°F)	Cure Cycle		Post Cure Time/Temp °C (°F)	Minimum Cure		Outlife at Room Temperature (days)	Outlife at -18°C (0°F) (months)
		Time	Temp °C (°F)		Pressure	Time		
Epoxy								
RTM 6	180 (350)	75 min	160 (320)	2 hours 180 (350)	75 min	160 (320)	15	9
BMI								
RTM 651	232 (450)	4 hours	191 (375)	85 psi 16 hours 232 (450) or 6 hours 245 (475)	4 hours	191 (375)	30	12

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