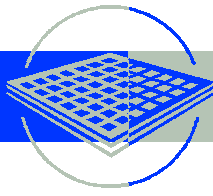


**Polyspeed[®]
Laminates**

Selector Guide



Polyspeed® Laminates

HOW TO USE THE CHART

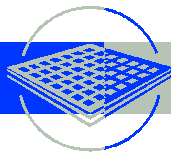
HEXCEL COMPOSITES offers a broad range of various laminate types for sports and industrial applications. This chart has been arranged to allow easy selection of a cured glass fibre epoxy laminate. To choose the most appropriate laminate for a particular application refer to mechanical properties and/or laminate thickness; this focuses on the smaller choice of laminates. Specific laminate information is available on individual data sheets. Please contact Hexcel Composites for more information.

Type	Key Features	Thickness mm	Mechanical
			Tensile Strength MPa
EU	Cured without pressure, single layer, uni- and bidirectional reinforcement	0.35 - 1.2	300 - 850
EV	Press cured, 1 - 3 layers, uni- and bidirectional reinforcement	0.35 - 1.8	400 - 900
	Press cured, 1 layer, bidirectional	0.35	>1060
R	Press cured, single layer, unidirectional, high mechanical properties, high fibre weights	0.4 - 1.8	800 - 1100
R-Kombi	Press cured, 2 - 3 layers, high fibre weights, high mechanical properties, UD glass fibre plus 1-2 layers of woven fabric	0.8 - 2.0	800 - 1100
VOEL	Press cured, laminate with decorative epoxy paper surface (0.10/0.15 mm), uni- and bidirectional reinforcement	0.5 - 1.6	300 - 900

Selector Guide

- Notes**
- Matrix** - Epoxy resin, hot cured
 - Resin content** - 25 - 50 % depending on reinforcement type and laminate type e.g. R-Types resin content < 35 %
 - Reinforcement** - E-glass fibre: Bi- and unidirectional woven fabrics, Bidirectional carbon fabrics, UD-glass roving - 2400 tex, weight = fibre weight/m²
 - Mechanical properties** - measured in 0° - direction on sanded laminate.
 - Surface grinding** - EU-, EV-, R- and R-Kombi-Types are ground on both sides. VOEL- Types are ground on the laminate side. Unground laminates are available on request.
 - Colours** - VOEL: surface material - white pigmented paper 100 g/m²
 - Glass Transition** - EV, R, R-Kombi:
These Laminates are available with epoxy systems - Tg 125° C.

Properties	Reinforcement		Width	Glass Transition °C	Applications	Type
	Type	Weight g/m ²	Min. - Max. mm			
Tensile Modulus GPa						
13 - 30	woven	350 - 1200	38 - 1300	110	Ski Snowboard	EU
18 - 42	woven glass	400 - 1200	38 - 1300	125	Ski Snowboard Industrial	EV
>2	woven carbon	200	38 - 1000			
35 - 44	UD	500 - 2400	38 - 1300	125		R
35 - 42	UD and woven	1000 - 2400	38 - 1300	125		R-Kombi
17 - 39	UD, woven	400 - 1800	38 - 1300	125	Ski (Cross-country) Snowboard	VOEL



Polyspeed® Laminates Selector Guide

Important

All information is believed to be accurate but is given without acceptance of liability. Users should make their own assessment of the suitability of any product for the purposes required. All sales are made subject to our standard terms of sale which include limitations on liability and other important terms.

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For More Information

Hexcel Composites is a leading worldwide supplier of composite materials to aerospace and other demanding industries. Our comprehensive product range includes:

- Carbon, glass, aramid and hybrid prepregs
- Honeycomb cores
- Structural film adhesives
- Honeycomb sandwich panels
- Special process honeycombs
- RTM materials

For further information, please contact your nearest sales office, or visit our website at www.hexcelcomposites.com

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