Technical data for UP - GRP

Standard values for hand laminates and RIM / RTM processes

	Test norm	Unit	Hand laminate	Wet molding	RTM	Hand laminate
			Polyester	Polyester	Polyester	Phenol
Glass content	-	%	25-30	30-40	30-40	25-50
Density	-	g/cm³	1,6	1,6	1,65	1.8-1.9
Tensile strength	DIN 53455	N/mm²	100 - 120	140 - 170	140 - 170	140-180
Compressive strength	DIN 53454	N/mm²	150	160	160	300
Flexural strength	DIN 53452	N/mm²	160-200	180-250	180-250	200-350
E-module	DIN 53457	N/mm²	8-10000	10-12000	10-12000	14-1800
Notch impact strength	DIN 53453	KJ/m³	100-180	120-200	120-200	50
Dimensional stability according to Martens	DIN 53458	°C	80-120	90-120	100-140	
Operating temperature	-	°C	-60 to +180	-60 to +180	-60 to +180	-60 to +250
Coefficient of linear expansion	DIN 52328	mm/°C	$25\text{-}40x10^{-6}$	$20\text{-}30x10^{-6}$	$20\text{-}30x10^{-6}$	
Water absorption	ISO R178	%	0,8	1,0-1,2	1,0-1,2	
Thermal conductivity	DIN 51612	W/mk	0,22	0,22	0,22	
Electr. puncture strength	DIN 53381	KV/cm	80-100	80-120	100-150	80-100
Tracking current strength	DIN 53480	Level	KA 3c	KA 3c	KA 3c	
Surface resistance	DIN 53482	Ω	10^{13}	10^{13}	10^{13}	10^{12}

All specifications are guide values that can be achieved in the corresponding process depending on the choice of resins, fibres and fillers. For more precise information, please ask for detailed technical documentation.

aXpel composites AG
Breite 120
CH-5277 Hottwil

Phone +41 62 867 20 60
office.composites@axpel.com
www.axpel-composites.com