

STYLIGHT® – PROCESSING CONDITIONS

Product name	Unit	StyLight Aesthetic S		StyLight Hybrid S	StyLight Structural S	
		G290-1	C245-1	C/2G1/C-1	G580-1	G600-3
Sheet pre-heating temperature range	°C	200 – 250	200 – 250	200 – 250	200 – 250	200 – 250
Sheet temperature range before closing the mold	°C	180 – 200	180 – 200	180 – 200	180 – 200	180 – 200
Mold temperature range	°C	180 – 200*	180 – 200*	180 – 200*	90 – 100	90 – 100
Mold closing pressure	bar	10 – 20	10 – 20	10 – 20	10 – 20	10 – 20
Demolding temperature	°C	< 95	< 95	< 95	< 95	< 95
Sheet pre-drying not needed						

*Variotherm recommended

STYLIGHT – MATERIAL FOR BACK INJECTION MOLDING

For three-dimensional parts used for automotive or sports applications, the back injected molding material plays a key role in the finished part performance. For that purpose different glass fibre reinforced injection molding materials have been developed to

offer a range of structural stiffness combined with high surface adhesion on the StyLight sheet. These special grades are identified with the suffix "SL" (for StyLight).

Product name			Novodur® M203 G3 SL	Terblend® N NG-04EF SL	Novodur® Ultra 4255 SL	Luran® S KR2858G3 SL
PROPERTIES	Standard	Unit				
Base resin			ABS GF	ABS/PA GF	PC/ABS	ASA GF
Glass fibre content		%	16	20	-	15
Melt volume rate, 220°C/10kg	ISO 1133	cm³/10min	18	30*	8	5
Tensile modulus, 23°C	ISO 527	GPa	5.6	5.3	2.1	6.6
Tensile stress at yield, 23°C	ISO 527	MPa	65	80	47	110
Heat deflection temperature B (annealed; 0.45 MPa)	ISO 75	°C	106	174	116	115
Density	ISO 1183	kg/m³	1190	1200	1100	1180
Linear mold shrinkage	ISO 294-4	%	0.3	0.4	0.55 – 0.75	0.4

* test method: 240°C/10kg

STYLIGHT® – PRODUCT PROPERTIES

			StyLight Aesthetic S		StyLight Hybrid S	StyLight Structural S	
Product name			G290-1*	C245-1	C/2G1/C-1	G580-1	G600-3
DESCRIPTION	Standard	Unit					
Fibres			Glass	Carbon	Carbon/Glass	Glass	Glass
Textile			Fabric: Twill 2/2	Fabric: Twill 2/2	Fabric: Twill 2/2	Fabric: Twill 2/2	Non crimp fabric: 0°/90°
Textile area weight		g/m ²	290	245	245/290	580	600
Weight rate		%	50/50	50/50	50/50	50/50	80/20
Fibre content		vol-%	45	45	45	45	47
Density		kg/m ³	1750	1410	1510**	1750	1770
Thickness per layer		mm	0.25	0.3	–	0.5	0.5***
MECHANICAL PROPERTIES							
Tensile modulus, 23°C	ISO 527-4	GPa	23.9	50	35	20	29.5
Tensile strength, 23°C	ISO 527-4	MPa	430	520	480	400	560
Tensile elongation, 23°C	ISO 527-4	%	2.6	1.0	1.8	2.4	2.5
Flexural modulus, 23°C	ISO 14125	GPa	22	38	24	20	34
Flexural strength, 23°C	ISO 14125	MPa	620	735	590	430	800

*also available with top-layer to further improve surface

**minimum density, increases per layer, starting with 0.85 mm thickness

***minimum of two layers for dimensional stability, symmetrical structure

STYLIGHT – NOMENCLATURE

StyLight Aesthetic S

Thermoplastic composite based on modified SAN matrix optimized for semi-structural aesthetic applications

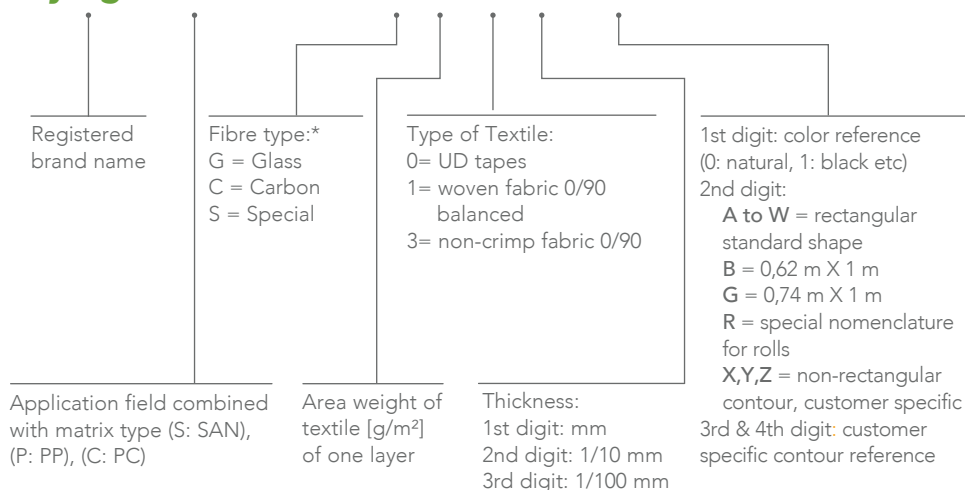
StyLight Hybrid S

Thermoplastic composite based on modified SAN matrix optimized for low cost aesthetic applications

StyLight Structural S

Thermoplastic composite based on modified SAN matrix optimized for structural applications

StyLight Aesthetic S G290-1-200-1XXX



*this nomenclature does not apply for Hybrid material