

Altuglas® Diffuse 101 – Technical Data Sheet

Sept 2015

Technical Specifications

	CONDITIONS	TEST METHOD	UNIT	VALUE
1 - GENERAL CHARACTERISTICS				
Density	23°C	ISO 1183	g/cm ³	1,19
Water absorption (24H)	23°C / 50% HR	ISO 62	%	0,3
Mould shrinkage		ASTM D-955	%	0,2-0,6

2 - RHEOLOGICAL PROPERTIES

Melt Flow Index	230°C / 3,8kg	ISO 1133	g/10mn	3,3
Process – Melt temperature	Mini – Maxi	-	°C	220-240
Process – Mold conditions	Mini – Maxi	-	°C	70-80
Drying conditions	4h	-		75-80

3 - MECHANICAL PROPERTIES

Tensile Strength at Yield	23°C	ISO 527-2	MPa	65
Elongation at Yield	23°C	ISO 527-2	%	5
Tensile Strength at break	23°C	ISO 527-2	MPa	65
Elongation at Break	23°C	ISO 527-2	%	5
Flexural Modulus	23°C	ISO 178	MPa	3300
Conventional Flexural Stress	23°C	ISO 178	MPa	103
Impact Resistance (Charpy, Unnotched)	23°C	ISO 179-1eU	KJ/m ²	18
Impact Resistance (Charpy, Notched)	23°C	ISO 179-1eA	KJ/m ²	1,8
Impact resistance (Izod, Notched)	23°C	ISO 180	KJ/m ²	1,8
Rockwell Hardness	23°C	ASTM D-785	HRM	M-92

4 - OPTICAL PROPERTIES

Light transmission	23°C / 2mm thick	ASTM D1003	%	92
Haze	23°C / 2mm thick	ASTM D1003	%	100
Relative Diffusing Power (1 inches)	23°C / 2mm thick	Internal	%	33
Relative Diffusing Power (2 inches)	23°C / 2mm thick	Internal	%	66
Diffusion factor [T(20°) + T(70°) / 2 T(5°)]	23°C / 2mm thick	Internal	-	0,16
Half angle value (angle for 50% max. LT)	23°C / 2mm thick	Internal	Degree	14
Hiding power (LT% at 2° / LT% at 0°)	23°C / 2mm thick	Internal	-	0,98

5 - THERMAL PROPERTIES

Vicat Softening Temperature	B 50 N	ISO 306	°C	103
HDT (annealed 60°C/16h)	1,82 Mpa	ISO 75-2	°C	95

6 - FLAMMABILITY

Glow wire resistance (thickness 2,05mm)		IEC 60695-2-12	°C	>700
Glow wire resistance (thickness 3,07mm)		IEC 60695-2-12	°C	>700
Fire Resistant		UL/94	CLASS	HB

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