

# Altuglas® Diffuse 101 – Technical data sheet

May 2013

## Technical Specifications

	Measurement method	Unit	Value
<b>General characteristics</b>			
Density	ISO 1183	g/cm <sup>3</sup>	1,19
Water absorption (24H)	ISO 62	%	0,3
Mould shrinkage	D-955	%	0,2-0,6
<b>RHEOLOGICAL PROPERTIES</b>			
Rheology - Melt Flow Index 230°C /3.8kg	ISO 1133 230°C / 3,8kg	g/10mn	3,3
Process - Melt temperature	Mini-Maxi	°C	220-240
Process – Mold Temperature	Mini-Maxi	°C	70-80
Drying Conditions	Time / Temperature	Hours / °C	4h / 75-80
<b>Mechanical properties</b>			
Tensile strength at Yield	ISO 527-2	MPa	65
Elongation at Yield	ISO 527-2	%	5
Tensile strength at Break	ISO 527-2	MPa	65
Elongation at Break	ISO 527-2	%	5
Flexural Modulus	ISO 178	MPa	3300
Charpy Impact strength (un-notched)	ISO 179-1eU	kJ/m <sup>2</sup>	10
Charpy Impact strength (Notched)	ISO 179-1eA	kJ/m <sup>2</sup>	10
Izod Impact strength (Notched)	ISO 180	kJ/m <sup>2</sup>	1,8
Rockwell Hardness	ASTM D-785	HRM	92
<b>Thermal properties</b>			
Vicat softening point (B50)	ISO 306	°C	103
Heat Deflection Temperature (1,82MPa)	ISO 75-2	°C	95
<b>Optical properties (2 mm thick samples)</b>			
Light transmittance	ASTM D-1003	%	91
Haze	ASTM D-1003	%	100
Relative Diffusing Power (1 inch)	Internal method	%	33
Relative Diffusing Power (2 inch)	Internal method	%	66
Diffusion factor [ T(20°) + T(70°) / 2 T(5°)]	Internal Method	-	0.16
Half angle value (angle for 50% max. LT)	Internal method	Degree	14
Hiding power (LT% at 2° / LT% at 0°)	Internal method	-	0.98
<b>Flammability</b>			
Glow wire resistance (thickness 2.05mm)	IEC 60695-2-12	°C	> 700C
Glow wire resistance (thickness 3.07mm)	IEC 60695-2-12	°C	> 700C
Fire resistance	UL94	Class	HB

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