

## GLACE

SMARTFIL GLACE is a thermoplastic polymer with superior mechanical properties to ABS and PLA, with good impact resistance and high flexibility\*.

Without warping, so large parts can be manufactured with excellent quality. In addition, a chemical polishing with alcohol can be applied, so that parts with high transparency and a completely smooth finish can be manufactured.

\*The material increases its flexibility after chemical polishing with alcohol.



Allow for all printers



Impact resistance



Soluble



	VALUES		UNIT OF MEASUREMENT	STANDARD	
<b>PHYSICAL PROPERTIES</b>					
Chemical name	Polyvinyl Butyral				
Density	1,1		g/cm <sup>3</sup>	ASTM D792	
<b>MECHANICAL PROPERTIES <sup>1</sup></b>					
	<b>XY PLANE</b>	<b>ZX PLANE</b>			
Tensile strength	31,2	9,8	MPa	ISO 527	
Traction module	-	-	MPa	ISO 527	
Flexion strength	59,2	22,5	MPa	ISO 178	
Flexion module	1923,7	1359,5	MPa	ISO 178	
Elongation at maximum effort	1,8	0,3	%	ISO 527	
Elongation by traction at break	6,6	0,3	%	ISO 527	
Elongation by flexion at break	14,8	3,3	%	ISO 178	
Charpy Impact Force (non-notched)	37,5	2,5	kJ/m <sup>2</sup>	ISO 179	
Hardness	-	-	Shore D	ISO 7619-1	
<b>THERMAL PROPERTIES</b>					
Glass transition temperature (T <sub>g</sub> )	68		°C	ISO 11357	
VICAT B (50 N 50°C/h)	62		°C	ISO 306	
HDT B (0,45 MPa)	62		°C	ISO 75	
<b>PRINTING PROPERTIES</b>					
Printing temperature	210 – 230		°C		
Bed temperature	50 – 70		°C		
Layer fan	70 – 90		%		
Material flow	100		%		
Layer height	≥ 0,2		mm		
Nozzle recommendations	≥ 0,2		mm		
Print speed	30 – 40		mm/s		
<b>SIZE</b>					
SIZE	NET WEIGHT	GROSS WEIGHT	DIAMETER	COLOR	PACKAGING
M	750 g	975 g	1,75 mm/2,85 mm	Natural	SmartBag, security seal, desiccant bag.

<sup>(1)</sup> Values obtained on printed specimens, nozzle 0,4 mm, rectilinear infill 100%, layer height 0,2 mm. For more information please contact us by email at [info@smartmaterials.com](mailto:info@smartmaterials.com) or visit our website [www.smartmaterials3d.com](http://www.smartmaterials3d.com)

NOTICE: The information provided in the data sheets is intended for reference only. It should not be used as design or quality control values. Actual values may differ significantly depending on printing conditions. The final performance of printed components not only depends on materials, design and printing conditions are also important.