



End use eyewear

ABOUT

Class	Polyamide-based glass fiber reinforced composite
Color	Dark grey
Technology	HSS (High Speed Sintering)
Test	CTI 600

Windform P2 has been engineered for a faster production of functional prototypes and end-use parts requiring high stiffness combined with high tensile strength. Its application extends from automotive to electrical and industrial design.

APPLICATIONS

- Faster production of functional rigid and end-use parts with higher volumes at lower cost
- **Automotive:** rigid parts for internal components
- **Electrical:** enclosures and housing for electronics
- **Consumer and household goods:** packaging and design
- **Industrial products:** furniture parts, presentation models, fixtures and tooling

>>> KEY FEATURES



High stiffness combined to high tensile strength



Detailed surface resolution



Electrically insulated
(CTI 600)



High recyclability

GOT A PROJECT?

GET IN TOUCH WITH OUR EXPERT TO TALK ABOUT MOST SUITABLE MATERIAL AND TECHNOLOGY

LET'S TALK

Europe
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North America
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UAE & GCC
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	Test Method	SI Unit	US Unit
GENERAL PROPERTIES			
Density (20 °C/68 °F)		1,14 g/cc	1.14 g/cc
Colour		DARK GREY	DARK GREY
THERMAL PROPERTIES			
Melting point	ISO 11357	181,30 °C	358.34 °F
HDT, 1.82 MPa	ISO 75 Method A	126,00 °C	258.80 °F
Vicat 10N	ISO 306 Method A50	175,50 °C	347.90 °F
MECHANICAL PROPERTIES			
Tensile Strength - X axis	UNI EN ISO 527-1	39,24 MPa	5691.28 psi
Tensile Strength - Y axis	UNI EN ISO 527-1	36,18 MPa	5247.46 psi
Tensile Strength - Z axis	UNI EN ISO 527-1	33,42 MPa	4847.16 psi
Tensile Modulus - X axis	UNI EN ISO 527-1	2925,20 MPa	424.26 ksi
Tensile Modulus - Y axis	UNI EN ISO 527-1	2429,00 MPa	352.30 ksi
Tensile Modulus - Z axis	UNI EN ISO 527-1	2449,60 MPa	355.28 ksi
Elongation at Break - X axis	UNI EN ISO 527-1	4,84 %	4.84 %
Elongation at Break - Y axis	UNI EN ISO 527-1	5,98 %	5.98 %
Elongation at Break - Z axis	UNI EN ISO 527-1	2,58 %	2.58 %
Flexural Strength	UNI EN ISO 14125	64,32 MPa	9328.83 psi
Flexural Modulus	UNI EN ISO 14125	2519,00 MPa	365.35 ksi
Impact Strength Unnotched (Charpy 23 °C/73.4 °F)	UNI EN ISO 179-1	12,70 kJ/m ²	6.04 ft-lb/in ²
Impact Strength Unnotched (Charpy -40 °C/-40 °F)	UNI EN ISO 179-1	11,90 kJ/m ²	5.66 ft-lb/in ²
Impact Strength Notched (Charpy 23 °C/73.4 °F)	UNI EN ISO 179-1	3,50 kJ/m ²	1.67 ft-lb/in ²
Impact Strength Notched (Charpy -40 °C/-40 °F)	UNI EN ISO 179-1	3,70 kJ/m ²	1.76 ft-lb/in ²
Hardness Shore D	UNI EN ISO 868	77	77
ELECTRICAL PROPERTIES			
Resistivity, Volume	ASTM D257-14	2,8 x 10 ¹⁴ Ω*cm	2.8 x 10 ¹⁴ Ω*cm
Resistivity, Surface	ASTM D257-14	2,2 x 10 ¹⁵ Ω	2.2 x 10 ¹⁵ Ω
CTI Comparative Tracking Index	IEC 60112 Solution A	600 V	600 V
SURFACE FINISH			
After HSS Process		3,78 Ra µm	3.78 Ra µm
After manual finishing		2,23 Ra µm	2.23 Ra µm
After CNC machining		0,67 Ra µm	0.67 Ra µm
PROPERTIES PER DENSITY UNIT			
UTS per density unit		34,42 MPa/(g/cc)	4992.20 psi/(g/cc)
Tensile Modulus per density unit		2565,96 MPa/(g/cc)	372.16 ksi/(g/cc)
Flexural Strength per density unit		56,42 MPa/(g/cc)	8183.02 psi/(g/cc)
Flexural Modulus per density unit		2209,65 MPa/(g/cc)	320.48 ksi/(g/cc)

Note: The material properties provided herein are for reference purposes only. Data was generated from the testing of parts produced with Windform® P2 material under optimal processing conditions.

Actual values may vary significantly as they are affected by part geometry and process parameters. Material specifications are subject to change without notice.

Standard Technical Details for Accuracy versus Tolerance:

For parts up to 1 mm (0.039"), the standard tolerance is ± 0,070 mm (0.003")

For parts up to 3 mm (0.118"), the standard tolerance is ± 0,125 mm (0.005")

For parts up to 6 mm (0.236"), the standard tolerance is ± 0,150 mm (0.006")

For parts over 6 mm (0.236"), refer to UNI EN ISO 286-2 JS14 class (linear tolerances).