

Technical Data

Evolution



Print durable components in high resolution. Evolution carefully balances strength, toughness, and elongation at break to suit a variety of applications. This all-round material is the right choice for functional prototypes, casings, fixtures, and other large parts.

Mechanical properties

Property	Standard	Print orientation	Experimental condition	Result
Tensile strength	ISO 527 (Type 5A)	XYZ	10 mm min ⁻¹	46 MPa
Young's Modulus	ISO 527 (Type 5A)	XYZ	1 mm min ⁻¹	2000 MPa
Elongation at break	ISO 527 (Type 5A)	XYZ	10 mm min ⁻¹	16 %
Flexural strength	ISO 178	XZY	2 mm min ⁻¹	70 MPa
Flexural modulus	ISO 178	XZY	2 mm min ⁻¹	1650 MPa
Charpy unnotched	ISO 179-1/1eU	XYZ	5 J	25 kJ m ⁻²
Izod notched	ASTM D 256	XYZ	5.5 J	25 J m ⁻¹
Shore hardness	ISO 868	XYZ	D	80
HDT A	ISO75	XZY	@ 1.8 MPa	59 °C
HDT B	ISO75	XZY	@ 0.46 MPa	82 °C

Physical data

Density	ISO 1183	XYZ	-	1.23 g cm ⁻³
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Fire resistance

Property	Standard	Print orientation	Experimental condition	Result
Flammability	UL 94	YZX	1.00 mm	HB

Electrical data

Property	Standard	Print orientation	Experimental condition	Result
Dielectric constant (ϵ_r)	IEC 60250	YZX	50 Hz	3.43
			1 kHz	3.32
			1 MHz	3.78
Dissipation factor ($\tan\delta$)	IEC 60250	YZX	50 Hz	0.0215
			1 kHz	0.0173
			1 MHz	0.0407

Print orientation according to ASTM/ISO 52921.

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