



TDS.PL.02.1

Filament Product Specification

LEXAN™ EXL AMHI240F Filament by SABIC is a high impact polycarbonate product available in black color option. The filament offers more ductility and high impact strength at room temperature and extreme low temperatures, in combination with improved UL94 performance, beyond the standard.

	MECHANICAL PROPERTIES	Test Method	English		SI	
			XZ	XY	XZ	XY
Tensile	Strength (Ultimate)	ASTM D638	7977 psi	6526 psi	55 MPa	45 MPa
	Modulus	ASTM D638	275 ksi	246 ksi	1.9 GPa	1.7 GPa
	Elongation (at break)	ASTM D638	5%	7%	5%	7%
Flexural	Modulus	ASTM D790	275 ksi	217 ksi	1.9 GPa	1.5 GPa
Impact	Izod notched (@ 73.4 °F/@ 23 °C)	ASTM D256	5.99 ft*lb/in ²	3.84 ft*lb/in ²	302 J/m ²	205 J/m ²
	Izod un-notched (@ 73.4 °F/@ 23 °C)	ASTM D256	16.48 ft*lb/in ²	16.01 ft*lb/in ²	880 J/m ²	855 J/m ²
	Izod notched (@ -22 °F/@ -30 °C)	ASTM D256	4.30 ft*lb/in ²	3.18 ft*lb/in ²	230 J/m ²	170 J/m ²
	Izod un-notched (@ -22 °F/@ -30 °C)	ASTM D256	17.61 ft*lb/in ²	18.73 ft*lb/in ²	940 J/m ²	1000 J/m ²

THERMAL PROPERTIES	Test Method	English	SI
HDT	ASTM D648	282.2 °F (@ 263 psi)	139°C (@ 1.82 MPa)
Vicat Softening Temperature	ASTM DI525	298.4 °F	148 °C

PHYSICAL PROPERTIES	Test Method	English	SI
Density	ASTM D792	0.043 lb/in ³	1.19g/cm ³
Volume Resistivity (@ 73.4 °F/23 °C)	ASTM D257	0.55 *10 ¹⁵ Ω *in	1.4*10 ¹⁵ Ω *cm



TECHNICAL DATASHEET

LEXAN™ EXL AMHI240F

TDS.PL.01

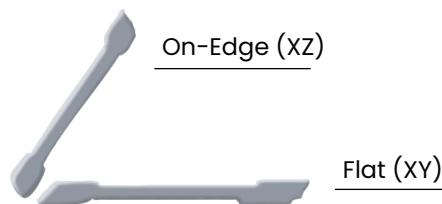


TEST SPECIMEN SETTING FOR MECHANICAL TESTING

All tests have been made with samples printed in two different orientations on EDGE (XZ) and FLAT (XY), with 100% infill density.

H.D.T. is the acronym of Heat Deflection Temperature. The international standard norm ASTM D648 provides the terms to determine the operating temperature of polymers.

XZ= X or "on edge"
XY= Y or "flat"



The performance properties of these materials may vary according to the operating conditions. Each user is responsible for determining that Roboze material is safe, technically suitable, and lawful for the intended application, as well as for identifying the proper disposal (or recycling) method consistent with applicable environmental laws and regulations.

The information presented in this document are typical values intended for reference and comparison purposes only. They should not be used for design specifications or quality control purposes. Actual values will vary with build conditions.

Roboze Inc

7934 Breen Drive, Houston
Texas 77064, United States
Phone: (+1) 346 229 5675

Roboze Spa

Via Vincenzo Aulisio 31/33
70124 Bari - Italy
Phone: (+39) 080 5057559