

SLS - PA2241 FR

Material data sheet for flame-resistant Polyamid (PA2241 FR) parts produced by Selective Laser Melting. Accuracy varies according to geometry, part orientation and print size $\pm 0.2\%$ (with lower limit of $\pm 0.1\text{mm}$). Distortion may cause greater deviation.

With SLS and PA2241 FR you can make fully functional assemblies with connecting parts, moving parts, or hinges in one piece. The material has also High mechanical strength and temperature resistance. There is no mechanical ageing of the components. With PA2241 FR you can make parts that is flame- and chemical-resistant and is suitable for aeronautics, aerospace applications in accordance with FA 25.853.

Material Properties	Value	Standard
Tensile Strength, x/y/z	49/49/46 MPa	ISO 527
Tensile Modulus, x/y/z	1900/1900/1900 MPa	ISO 527
Elongation at break, x/y/z	15/15/6	ISO 527

Thermal Properties	Value	Standard
Melting temperature (20°C/min)	185°C	ISO 11357-1
Heat deflection temperature (1,80 MPa)	84°C	ISO 75-1/-2
Heat deflection temperature (0,45 MPa)	154°C	ISO 75-1/-2

Other Properties	Value	Standard
Density	1.0 \pm 0.03 g/cm ³	-
Achievable part accuracy	$\pm 0.3\%$, or +0,25% dimension	-
Smoke generation	1.0/1.5/2.0mm	JAR/FAR 25, App. F - Part V & AITM 2.0007
Hardness	89 HRB	ISO 6508-1
Toxic gas generation	1.0/1.5/2.0mm	AITM 3.0005