

MATERIAL DATASHEET

Meldin® 5301: Types: V-X

Features: Beige, Proprietary custom PEEK, High elongation

Benefits: Wide chemical resistance, Good mechanical properties at elevated temperatures

Working Temperature Range: -80° to +260°C [-112° to +500°F]

Properties	Test Methods	Typical Values	Units
PHYSICAL			
Specific Gravity	ASTM D792	1.3	--
Water Absorption, 24hr	ASTM D570	NA	%
MECHANICAL			
Tensile Strength-RT- Yield	ASTM D638	95 [13.800]	MPa [psi]
Elongation-RT Break	ASTM D638	40	%
Tensile Modulus-RT	ASTM D638	3.4 [4.9]	GPa [psi x 10 ⁵]
Compressive Strength – RT	ASTM D695	NA	MPa [psi]
Compressive Modulus-RT	ASTM D695	NA	GPa [psi x 10 ⁵]
Flexural strength-RT	ASTM D790	NA	MPa [psi]
Flexural Modulus-RT	ASTM D790	NA	GPa [psi x 10 ⁵]
THERMAL			
Melting point	ASTM D3418	343 [650]	°C [°F]
Glass Transition Temperature	ASTM D3418	143 [290]	°C [°F]
Linear Coefficient of Thermal Expansion along flow, <Tg / >Tg	ASTM E831	6 [3.4] / NA	m/m/°C [in/in/°F] x 10 ⁻⁵
Linear Coefficient of Thermal Expansion average, <Tg / > Tg	ASTM E831	NA/NA	m/m/°C [in/in/°F] x 10 ⁻⁵
Thermal conductivity	ASTM F433	NA	GPa [psi x 10 ⁵]
Heat deflection temperature	ASTM D648	NA	°C [°F]
ELECTRICAL			
Dielectric Strength (2.5 mm thick)	ASTM D149	16 [407]	kV/m [V/mil]
Dielectric Constant-RT, 1kHz)	ASTM D150	NA	-
Volume Resistivity-RT	ASTM D257	10 ¹⁵	Ohm cm

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