

ChromaMotive™ 70

Flexible 3D-printable polyurethane with high tensile strength

ChromaMotive™ 70 is a strong, flexible polyurethane material with a high degree of crosslinking. It was designed for medium-temperature applications requiring high tensile strength, such as rail applications. It has slow burning properties.

FEATURES

- Smooth parts without post processing
- Isotropic tensile properties (Z properties are 75-115% of XY Properties)
- High tensile strength
- No warping during printing
- Seals tightly against gases and liquids
- Solidly filled parts

PROPERTY	MEAN	STD. DEVIATION	UNIT	STANDARD
Tensile Strength (XY)	21 (3052)	2.6 (373)	MPa (psi)	ASTM 638
Tensile Strength (Z)	19.4 (2807)	3.7 (536)	MPa (psi)	ASTM 638
Elongation at Break (XY)	940	57	%	ASTM 638
Elongation at Break (Z)	706	96	%	ASTM 638
Modulus at 100% Strain (XY)	2.6 (375)	0.1 (13)	MPa (psi)	ASTM 638
Modulus at 100% Strain (Z)	3.0 (433)	0.1 (14)	MPa (psi)	ASTM 638
Hardness	75	+/-5	Shore A	ASTM D2240
Tensile Set	21.6	Not applicable	%	ASTM 412
Tear Strength	17.2	Not applicable	kN/m	ISO 34

PHYSICAL & THERMAL PROPERTIES

Cured Density	1.21 g/mL
Temperature Range	-40 to 125° C
Maximum Temperature (Short-Term)	150 / 10° C/min

CHEMICAL PROPERTIES

Flame Retardancy	Slow Burning
Resistance to Compressor Oil	Very Good
Water Absorption	Low
Adhesion to Metals & Fabrics	Very Good

CHROMAMOTIVE™ RESINS

ChromaMotive™ resins are flexible, colored, translucent or opaque polyurethane resins. They have been specifically developed for 3D-printing applications that require specific flow and viscosity parameters in order to work with the RX-AM™ platform. This unique system has been evaluated for applications ranging from automotive to textiles. ChromaMotive™ is available with a wide range of properties.

To learn more about ChromaMotive™, please contact us at info@c3dm.com.