

ChromaMotive™ D65

Shore D thermoset polyurethane for additive manufacturing

ChromaMotive™ D65 is a rigid polyurethane with outstanding performance and dynamic properties. It has high impact, hydrolysis and abrasion resistance. Designed for applications requiring a range of use temperatures, it exhibits very good low-temperature impact strength. This material is suitable for applications in automotive (e.g., bumpers and fenders), agricultural, marine, aerospace (e.g., aircraft interiors) and winter sporting equipment. To learn more about ChromaMotive, please contact us at info@c3dm.com.

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	UNIT	STANDARD
Tensile Strength (XY)	44.7 (6489)	MPa (psi)	ASTM 638
Tensile Strength (Z)	51 (7391)	MPa (psi)	ASTM 638
Elongation at Break (XY)	326	%	ASTM 638
Elongation at Break (Z)	329	%	ASTM 638
Modulus at 100% Strain (XY)	16.3 (2374)	MPa (psi)	ASTM 638
Modulus at 100% Strain (Z)	17.4 (2532)	MPa (psi)	ASTM 638
Tensile Modulus	74 (10733)	MPa (psi)	ASTM 638
Hardness	65	Shore D	ASTM D2240
Hardness after 24h at 100° C	66	Shore D	ASTM D2240
Notched Izod Impact 23° C	No Break	J/m	ASTM D256
Un-notched Izod Impact -30° C	1505	J/m	ASTM D256
Notched Izod Impact -30° C	198	J/m	ASTM D256
Notched Charpy Impact 23° C	Partial Break	kJ/m ²	ISO 179
Un-notched Charpy Impact -30° C	No Break	kJ/m ²	ISO 179
Notched Charpy Impact -30° C	8	kJ/m ²	ISO 179
Flexural Strength	4.2	MPa	ASTM D790
Flex Modulus	99	MPa	ASTM D790

COMPRESSION SET PROPERTIES

21%

STANDARD

ASTM D395 (100° C for 22 hours, 25% deflection)

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 reactivity to work with the RX-AM™ platform and Chromatic's RX-Flow™ printers.