The Design to Manufacturing Co.

MATERIAL

VERO ULTRACLEAR

OVERVIEW

For more information or advice: theD2Mco.com/contact-us info@theD2Mco.com

VeroUltraClear

VeroUltra™Clear is a transparent PolyJet™ digital material offering exceptional clarity combined with strength, stiffness and impact resistance. VeroUltraClear simulates PMMA (polymethyl methacrylate), commonly known as acrylic, achieving 86% light transmission through a 6 mm thick sample. VeroUltraClear has a higher level of clarity and transparency and a lower yellow index than standard VeroClear™. Thermal properties are similar but mechanical properties are somewhat lower than VeroClear.

Typical applications include concept models and prototypes for eyewear, lighting components, and the replication of glass and clear polymers. Other uses include modeling clear tubes and housings for pumps and gearboxes to view fluid flow and internal mechanisms.

	ASTM	Value
Tensile Strength	D-638-03	39 – 43 MPa (5,650 – 6,240 psi)
Elongation at Break	D-638-05	20 – 35%
Modulus of Elasticity	D-638-04	1,400 – 2,100 MPa (203,000 – 304,600 psi)
Flexural Strength	D-790-03	58 – 72 MPa (8,400 – 10,400 psi)
Flexural Modulus	D-790-04	1,900 – 2,300 MPa (275,000 – 333,000 psi)
HDT, °C @ 0.45 MPa Before Photobleaching	D-648-06	47 – 49 °C (117 – 120 °F)
HDT, °C @ 0.45 MPa After Photobleaching	D-648-06	48 – 52 °C (118 – 126 °F)
Izod Notched Impact	D-256-06	20 – 30 J/m (0.375 – 0.562 ft-lb/in.)
Water Absorption	D-570-98 24hr	1.25 – 1.40%
Tg	DMA, E»	52 – 54 °C (125.6 – 129.2 °F)
Shore Hardness	Scale D	80 – 85
Rockwell Hardness	Scale M	70 – 75
Polymerized Density	ASTM D792	1.18 – 1.19 g/cm^3
Ash Content	USP 281	0.02 – 0.06%

System Availability

Printers	Minimum Layer Thickness	Support Structure	Available Colors
J735™ / J750™ J826™ Prime/ J835™	14 microns (0.00055 in.)	SUP705 (water jet removable) SUP706B (soluble)	Clear
J850™ Pro/ J850 Prime	14 microns (0.00055 in.)	SUP705 (water jet removable)	Clear
J4100™	27 microns (0.001 in.)	SUP705 (water jet removable)	Clear