

Ultracur3D® Photopolymers - Material Properties Overview

	Ultracur3D®																		
	UV Range (355 – 405 nm)											Daylight Range (460 nm)							
	Tough			Rigid			Flexible and Elastomeric					Dental			Engineering Plastic Daylight				
	ST 45	ST 80	ST 1400	RG 35	RG 50	RG 1100	FL 300	FL 60	EL 60	EL 150	EL 4000	DM 2505	DM 2304	DMD 1005	EDP 1006	EPD 1086	EPD 2006	EPD 3500	EPD 4006
E Modulus (MPa)	2300	1500	1900	2600	2300	3080	-	-	-	16	42	2200	-	2710	1500	1810	2370	2500	1800
Tensile Strength (MPa)	60	35	45	80	63	70	5	4	9	7	11	48	4	60	40	42	50	60	45
Elongation at Break (%)	25	20	43	6	4	5	245	90	95	182	172	4	160	4	25	26	10	18	45
Flexural Modulus (MPa)	2400	1700	1540	2400	2100	2880	-	-	-	-	-	2150	-	2400	1460	1620	2210	2400	1600
Flexural Strength (MPa)	110	60	80	110	87	119	-	-	-	-	-	83	-	85	52	67	90	110	70
Impact Strength - Izod Notched (J/m)	30	24	43	23	11	16	-	-	-	-	-	-	-	-	35	28	11	25	46
Hardness	80 D	80 D	78 D	85 D	85 D	85 D	40 A	60 A	75 A	77 A	90 A	73 D	50 A	80 D	79 D	81 D	80 D	79 D	78 D
HDT - 0.45 MPa (°C)	73	46	57	83	66	116	-	-	-	-	-	69	-	93	44	53	81	70	54
HDT - 1.85 MPa (°C)	61	42	48.7	64	55	84	-	-	-	-	-	55	-	73	40	46	61	57	43
Flammability	HB	-	-	HB	-	HB	-	-	-	-	-	-	-	-	HB	HB	HB	-	HB
Viscosity - 30 °C (mPas)	210	400	280	600	65	201	160	400	3400	90	350	80	160	110	1033	450	310	600	300
Tear Strength - Graves (N/mm)	-	-	-	-	-	-	9	9	18	14	37	-	-	-	-	-	-	-	-
Rebound Resilience (%)	-	-	-	-	-	-	16	11	21	28	30	-	-	-	-	-	-	-	-

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Temperature Resistance	★★	★	★	★★	★★	★★★★						★★		★★	★	★	★★	★★	★
Water Absorption	★	★★★★	★★★★	★★★★	★★	★★★★	★		★★★★	★	★	★★	★	★★★★	★★★★	★★★★	★★★★	★★★★	★★
Chemical Resistance	★★	★★★★		★★★★		★★★★			★★	★★	★★					★★★★			★★
UV Resistance	★★	★★★★		★★★★		★★				★★	★★					★★★★			
Accuracy												●	●	●					
Rosflex								●	●										
Flammability	●			●		●									●	●	●		●
Biocompatibility	●	●	●	●			●	●	●	●				●		●			●
Sterilization	●	●	●	●		●		●	●										
General Purpose	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓
Industrial Use / Tooling	✓		✓	✓		✓			✓	✓	✓						✓	✓	✓
Dental												✓	✓	✓					
Medical Modelling			✓	✓			✓		✓	✓	✓								
Color	● ●	● ●	●	● ●	●	● ●	●	●	●	●	● ●	●	●	●	●	●	●	●	● ●

● Data available, please contact us.