

# 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	ST 7500 G	RG 35	RG 50	RG 1100	RG 3280	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	2300	2600	2300	3080	10000						2200		2710	1500	1810	2370	2500	1800
Tensile Strength (MPa)	60	35	45	54	80	63	70	70	5	4	9	7	11	48	4	60	40	42	50	60	45
Elongation at Break (%)	25	20	43	13	6	4	5	0.7	245	90	95	182	172	4	160	4	25	26	10	18	45
Flexural Modulus (MPa)	2400	1700	1540	2150	2400	2100	2880	8780						2150		2400	1460	1620	2210	2400	1600
Flexural Strength (MPa)	110	60	80	95	110	87	119	73						83		85	52	67	90	110	70
Impact Strength - Izod Notched (J/m)	30	24	43	25	23	11	16	2.36									35	28	11	25	46
Hardness	80 D	80 D	78 D	82 D	85 D	85 D	85 D	96 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	64	83	66	116	>280						69		93	44	53	81	70	54
HDT - 1.85 MPa (°C)	61	42	48.7	54	64	55	84	132						55		73	40	46	61	57	43
Flammability	HB				HB		HB										HB	HB	HB	-	HB
Viscosity - 30 °C (mPas)	210	400	280	130	600	65	201	230	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 Resistance	★	★★★	★★★	★★★	★★★	★★	★★★	★★★	★★	★★	★★★	★	★	★★	★★	★★★	★★★	★★★	★★★	★★★	★★★
Chemical Resistance	★★	★★★			★★★		★★★			★★	★★	★★						★★★	★★★	★★	★★
UV Resistance	★★	★★★	★★		★★		★★		★★★		★★	★★★						★★	★★	★★	★★
Accuracy													●	●	●						
Rosflex										●	●										
Flammability	●				●		●										●	●	●		●
Biocompatibility	●	●	●	●	●			●		●	●						●		●		●
Sterilization	●	●	●		●		●		●	●											
General Purpose	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓
Industrial Use / Tooling	✓		✓	✓	✓		✓	✓		✓	✓	✓						✓	✓	✓	✓
Dental													✓	✓	✓						
Medical Modelling			✓		✓			✓		✓	✓	✓									
Color	● ●	● ● ●	●	●	● ●	●	● ●	●	●	●	●	● ●	●	●	●	●	●	●	●	● ●	●

● Data available, please contact us.