

VACUUM CASTING POLYURETHANE PRODUCTS

Alchemix		VC3300	VC334	VC3340	VC3340S	VC3341	VC3341S	VC3360	VC3361	VC3362	VC3362 BLACK	VC3365	VC3370	VC3384	VC3391	VC3397
Colour		Opaque	Water Clear	Water Clear	Water Clear	Water Clear	Water Clear	Opaque	Beige	Brown	Black	Opaque	Amber	White	White	Water Clear
Ratio	By weight	Varyable	100:130	100:130	100:120	100:150	100:150	100:120	100:100	100:100	100:100	100:110	100 – 130	100:150	100 – 110	100:150
Mix . Vis	mPas	450 – 900	120 – 160	120 – 160	120 – 160	TBC	TBC	600 – 900	300 – 500	280 – 380	280 – 380	500 – 1000	200 – 400	450 – 650	260 – 340	450 – 650
Pot life	min	2 – 2.5	5 – 6	5 – 6	9 – 11	7 – 8	10 – 12	3 – 4	3.5 – 4.5	3.5 – 4.5	3.5 – 4.5	3 – 4	10 – 15	5 – 6	4 – 5	7 – 10
Demould time	Min	45 -60	30 – 45	30 – 45	60 – 90	60 – 90	60 – 90	20 – 40	45 – 60	45 – 60	45 – 60	45 – 60	5 hour	45 – 60	30 – 40	45 – 60
Max Thickness	Mm	15	15	15	40	15	40	15	10	10	10	20	40	15	15	15
Density	g/cm ³	1.02 – 1.1	1.04 – 1.09	1.04 – 1.09	1.04 – 1.09	1.04 – 1.09	1.04 – 1.09	1.11 – 1.16	1.09 – 1.14	1.12 – 1.17	1.12 – 1.17	1.21 – 1.26	1.03 – 1.08	1.22 – 1.27	1.10 – 1.15	1.1 – 1.15
Hardness	Shore	Variable	85 – 90D	85 – 90D	85 – 90D	85 – 90D	85 – 90D	85 – 90D	75 – 80D	87 – 90D	87 – 90D	87 – 92D	70 – 75D	80 – 85D	83 – 88D	82 – 87D
Linear Shrinkage	%	TBC	0.2 – 0.4	0.2 – 0.4	0.2 – 0.4	0.2 – 0.4	0.2 – 0.4	0.2 – 0.4	0.2 – 0.4	0.2 – 0.4	0.2 – 0.4	0.2 – 0.4	1	0.2 – 0.4	0.2 – 0.3	0.2 – 0.4
Tensile Strength	MPa	1.5 – 11.5	60 – 65	60 – 65	60 – 65	70 – 75	30 – 40	80 – 85	35 – 40	70 – 75	70 – 75	62 – 72	25 – 30	65 – 75	65 – 75	70 – 80
Elongation	%	200 – 1100	6 – 8	6 – 8	6 – 8	14	4 – 5	10 – 12	9 – 11	10 – 12	10 – 12	6 – 7	60 – 70	10 – 20	7 – 12	9 – 11
Tear Strength	N/mm	TBC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Flexural Strength	MPa	TBC	80 -85	80 – 85	80 – 85	110 – 120	70 – 80	TBC	35 – 45	N/A	N/A	105 – 115	15 – 20	90 – 100	75 – 85	90 – 110
Compress strength	MPa	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	9 – 11	TBC
Flexural Modulus	MPa	TBC	2000-2300	2000-2300	2000-2300	2000-2300	1900-2100	2900-3100	1100-1400	2500-2800	2500-2800	2900-3300	1000	2100-2300	1300-1600	2200 – 2500
TG - HDT	°C	N/A	40 - 45	40 – 45	40 - 45	70	TBC	82 – 87	65 – 70	95 – 100	95 – 100	90 – 95	180 – 200	75 – 85	68 – 72	68 – 72
Refract Index			1.47	1.47	1.47	1.47	1.47									
Applications		3 Component variable Shore A hardness from 35A to 95A	PMMA, ABS, PC UV stable slow version available	PMMA, ABS, PC UV stable Superior Clarity	PMMA, ABS, PC UV stable Superior Clarity	PMMA, ABS, PC UV stable Superior Clarity High Temp	PMMA, ABS, PC UV stable Superior Clarity High Temp	PA, glass filled PA Fast cure Slow version available	Polyprop Slow version available	ABS High temp resistant	ABS High temp resistant	Glass filled PA Very rigid Slow version available	Polyamide 6 Superior impact and flexural strength	UL94-V0 Rated Flame Retardant	ABS, PP General purpose Low Viscosity	PMMA, ABS NON TOXIC

This table is offered as a guide only full product testing should take place to ascertain the suitability of a product for a specific purpose.