

POLYURETHANE (1 of 2)

Material Data Sheet for polyurethane parts produced by vacuum casting.



Name	Color	Similar to	Properties	Shore	Density (25°C)	Flexural modulus of elasticity	Flexural strength	Elongation at break	Charpy-impact strength	Max. tensile strength	Tensile modulus of elasticity	Glass transition temperature (Tg)	Heat deflection temperature
					g/cm ³	MPa	MPa	%	kJ/m ²	MPa	MPa	°C	°C

Elastic Vacuum Casting Resin

FIT45 - 30 A	Whitish	Rubber	High tear strength	30 A	1.1	-	-	475	-	2.2	-	-	70
FIT45 - 40 A	Whitish	Rubber	High tear strength	40 A	1.1	-	-	350	-	2.5	-	-	70
FIT45 - 50 A	Whitish	Rubber	High tear strength	50 A	1.1	-	-	-	-	-	-	-	70
FIT45 - 60 A	Whitish	Rubber	High tear strength	60 A	1.1	-	-	-	-	-	-	-	70
FIT45 - 70 A	Whitish	Rubber	High tear strength	70 A	1.1	-	-	-	-	-	-	-	70
FIT45 - 80 A	Whitish	Rubber	High tear strength	80 A	1.1	-	-	-	-	-	-	-	70
FIT45 - 95 A	Whitish	Rubber	High tear strength	95 A	1.1	-	-	300	-	20.4	-	-	70

Semi-Rigid Vacuum Casting Resin

FIT PU 55	Amber	PP/HDPE	Good temperature resistance	50-55 D	1.08	-	-	750	-	15	-	-	-40/+90
FIT PU 56	Amber	PP/HDPE	High shock absorption, no break, flexible	70 D	-	580	24	50	21	20	650	-	80
FIT PU 57	Whitish	PP/HDPE	suits well for catches and snap-fits	75 D	-	900	35	35	60	32	1000	>120	95
FIT PU 57 GF	Whitish	PP/HDPE	suits well for catches and snap-fits	75 D	-	1800	-	6	-	45	-	>120	95

Mentioned mechanical properties are optimum values according to manufacturer.

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Rigid Vacuum Casting Resin													
FIT PU 63	White	ABS	Impact strength, easy to color	80 D	1.13	2050	80	5	-	56	1850	110	100
FIT PU 65	Black	ABS	High temperature range (up to 130°C)	80 D	1.14	2300	80	13	60	60	1800	-	130
FIT PU 65 GF	Black	ABS-GF	High temperature range (up to 130°C)	80 D	1.14	2700	-	3	-	68	-	-	130
FIT PU 67	White/yellowish	PA 6.6/PPS/PEEK	High temperature resistance	80 D	1.19	1850	80	13	41	61	-	220	195
FIT PU 68 GF	Whitish	PA-GF	High rigidity, high bending strength	85 D	1.2	4500	150	3	30	85	-	95	90
Transparent Vacuum Casting Resin													
FIT PU 71	Transparent	Rubber	Easy to color, UV-stable	25 D	1.04	-	-	170	-	5	-	-	-
FIT PU 72	Transparent	PC/PMMA	Easy to color, UV-stable	85 D	1.06	2400	110	7.5	48	66	2400	95	85
Flameretardant Vacuum Casting Resin													
FIT PU 81	Black	Rubber	Self-extinguishing, low tear strength, UL94:V-0	55 A	1.3	-	-	267	-	2.1	-	-50 up to +120	N/A
FIT PU 82	Dark brown	ABS	Self-extinguishing, hardly inflammable, UL94:V-0	80 D	1.15	1500	65	5	-	60	-	-	130
Silicones													
FIT SI 40A	Opaque transparent	Silicone	Highly flexible, extreme tear strength	40 A	1.1	-	-	360	-	5.5	-	-	-
FIT SI 60A	Beige	Silicone	High mechanical strength	60 A	1.35	-	-	140	-	4.5	-	-	-

Mentioned mechanical properties are optimum values according to manufacturer.