




# **ULTIFIL RANGE**

**TECHNICAL GUIDE TO SELECTION**



Polyurethane and Epoxy Encapsulating Resins



		PROCESSING INFORMATION									
			S.G Base	S.G Mix	Mix ratio	Mix ratio	Viscosity mixture	Usable life	Colour	Hardness	Tensile Strength
			G/cm <sup>3</sup>	G/cm <sup>3</sup>	Parts by volume	Parts by weight	Poise @ 25°C	500 gms mass mins @ 21°C		Shore D / A	ISO 5 mpa
POLYURETHANE POTTING RESINS	010		1.3	1.26	3.8:1	4:1	18	75	Black	85A	11
	010X-#		1.45	1.4	3.95:1	4.6:1	35	5	Off-white Blue, black	90A	13
	020		1.5	1.45	4:1	4.88:1	18	60	Black	75A	12
	025	UL94 V0	1.53	1.45	4:1	5:1	18	60	Black	90A / 50D	15
	030		1.42	1.35	1.7:1	2:1	16	5	Black	85D	45
	041	UL94 V0 UL746B	1.56	1.5	3.5:1	4.4:1	22	10	Black	85D	32
	050S		1.28	1.28	3.5:1	3.7:1	18	20	Black	60D	20
	050N	UL94 V0	1.53	1.46	3.95:1	4.77:1	25	Various	all colours	75D	27
	050X-3		1.2	1.2	2.22:1	2.4:1	8	10	Black	80D	32
	060		1.5	1.45	8:1	10:1	20	15	Off-white	75A / 12D	8
	060FR		1.71	1.62	6:1	8.5:1	55	5	Black	90A / 42D	13
	060XT		2.0	1.87	5:1	8.13:1	80	10	Black	55D	13
075		1.02	1.04	1.5:1	1.5:1	4	90	Clear	75D	29	
EPOXY POTTING RESINS	U2004		1.1	1.1	3:1	3.3:1	2	45	Clear	82D	47
	U2004B		1.1	1.1	3.6:	4:1	2	45	Black	80D	45
	UF820		1.45	1.65	3:4	1:1	Thixo	120	Red	87D	45
	UF810		1.8	1.7	8.75:1	15:1	120	90	Blue	87D	42
	UF810NL	UL94 V0	1.78	1.6	3.5:1	6.25:1	40	40	All colours	87D	50
	UF810STB	UL94 V0	1.87	1.79	10:1	19.8:1	45	45	Black	88D	55
	UF2004FR		1.67	1.52	5:1	8.5:1	30	30	Black	86D	48
	UF2004TCB	UL94 HB	1.77	1.65	5:1	9:1	45	45	Black / Grey	86D	52
	UF2040D		1.73	1.65	8:1	14:1	45	120	White	50D	52

CURED PROPERTIES							
Tensile strength	Elongation at break	Dielectric strength	Dielectric constant	Flame retardant	Water absorption	Thermal conductivity	Special Property
MPa	ISO 527 %	IEC243 - 1 Kv / cm	IEC 250 @ 50Hz	UL 94	ISO 62 % @ 23°C		
27	55	176	4.5	-	0.21	0.22	Resilient, medium to low viscosity general purpose potting
27	44	160	4.5	-	0.21	0.28	Cost effective volume fill
27	80	190	5.3	VO	0.18	0.32	Flame retardant resilient, medium to low viscosity general purpose potting
27	95	200	5.3	VO	0.18	0.52	Flame retardant resilient low viscosity material, where high thermal conductivity and high elasticity is needed
27	2	192	4.1	-	0.13	0.25	Rigid medium to low viscosity general purpose potting
27	8	189	4.5	VO	0.16	0.45	Flame retardant, rigid, general purpose potting UL RTI 115°C
27	40	184	4.4	-	0.71	0.22	Semi-rigid, medium to low viscosity general purpose potting
27	22	206	4.6	VO	0.18	0.32	Flame retardant, semi-rigid general purpose potting
27	8	184	4.3	-	0.15	0.21	Low viscosity, low profile, rigid compound
27	62	160	4.4	-	0.21	0.31	Flexible for stress sensitive components and re-enter ability
27	48	160	4.9	VO	0.21	0.42	Flame retardant resilient, good heat dissipation
27	35	155	5.4	-	0.24	1.02	High thermal conductivity
27	35	215	4.2	-	0.15	0.23	Low viscosity, optically clear, UV stable potting
27	5	182	4.3	-	0.21	0.22	Low viscosity, thermal shock resistance, class F
27	6	168	4.5	HB	0.14	0.22	Low viscosity, thermal shock resistance, class F
27	6	157	5.6	-	0.2	0.6	Thixotropic trowelling compound
27	4	160	4.9	-	0.18	0.46	General purpose potting
27	2	180	4.7	VO	0.16	0.44	Flame retardant potting of electronic transformers
27	1	200	5.4	VO	0.18	1	High thermal conductivity, Class H
27	4	187	4.7	VO	0.17	0.5	Flame retardant, thermal shock resistance, Class F
27	4	190	4.8	HB	0.16	0.7	Good thermal conductivity, thermal shock resistance, Class H
27	11	190	5.5	HB	0.11	0.6	Flexible for large castings and thermal shock resistance



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