



Ultifil Range

Technical Guide To Selection

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Polyurethane and Epoxy Encapsulating Resins

Potting & Casting Resins
Thermal Class B,F & H
Variety Of Applications



		PROCESSING INFORMATION								CURED PROPERTIES								SPECIAL PROPERTY		TYPICAL APPLICATION
		UL QMFZ2 File E174454 	S:G Base G/cm ³	S:G Mix G/cm ³	Mix ratio Parts by volume	Mix ratio Parts by weight	Viscosity mixture Poise @ 25°C	Usable life 500 gms mass mins @ 21°C	Colour	Hardness Shore D / A	Tensile Strength ASTM D-638 N	Elongation at break ASTM D-638 %	Dielectric strength IEC 60243 Kv / cm	Dielectric constant IEC 60250 @ 50Hz	Flame retardant UL 94 (UL recognised)	Water absorption ISO 62 % @ 23°C	Thermal conductivity W/mK			
POLYURETHANE POTTING RESINS	010		1.3	1.26	3.8:1	4:1	18	75	Black	85A	11	55	176	4.5	-	0.21	0.22	Resilient, medium to low viscosity general purpose potting	PCB, transformers, electronics	
	010X-#		1.45	1.4	3.95:1	4.6:1	35	5	Off-white Blue, black	90A	13	44	160	4.5	-	0.21	0.28	Cost effective volume fill	Transformers, yellow box	
	025		1.5	1.45	4:1	4.88:1	18	60	Black	90A / 50D	15	95	200	5.3	VO	0.18	0.45	Flame retardant resilient low viscosity material, where high thermal conductivity and high elasticity is needed	PCB, transformers, electronics	
	041	UL94 V0 UL746B 	1.56	1.5	3.5:1	4.4:1	22	10	Black	85D	32	8	189	4.5	VO	0.16	0.45	Flame retardant, rigid, general purpose potting UL RTI 115°C	Toroidal transformers, Capacitors	
	050N	UL94 V0 	1.53	1.46	3.95:1	4.77:1	25	Various	All colours	75D	27	22	206	4.6	VO	0.18	0.32	Flame retardant, semi-rigid general purpose potting	Linear motors, transformers, Toroids, small magnets	
	050AD		1.56	1.49	5.32:1	6.78:1	8	20	Grey	75	9	64	195	4.5	-	0.2	0.43	Minimal pressure on inserts, lower shrinkage, and excellent adhesion for sealing to metal cases	Encapsulation, sealing and potting of electronic components	
	060		1.5	1.45	8:1	10:1	20	15	Off-white	75A / 12D	8	62	160	4.4	-	0.21	0.31	Flexible for stress sensitive components and re-enter ability	Ferrite cores, PCB, electronics, small transformers	
	060FR		1.71	1.62	6:1	8.5:1	55	5	Black	90A / 42D	13	48	160	4.9	VO	0.21	0.42	Flame retardant resilient, good heat dissipation	Large transformers, LV lighting	
	060XT		2.0	1.87	5:1	8.13:1	80	10	Black	55D	13	35	155	5.4	-	0.24	1.02	High thermal conductivity	Transformers that require heat dissipation	
CLEAR CAST	PU570		1.05	1.13	1:1	1:1.5	14	10	Clear (water white)	50	N/A	70	15	N/A	-	<1.5%	N/A	Clear, room temperature cure, flexible, UV Stable	LED encapsulation, sealing and potting of electronics	
	PU670 H6		1.1	1.09	0.73:1	0.75:1	< 5	10	Clear (water white)	85	55	9	15	N/A	-	<1.5%	N/A	Clear, room temperature cure, high glass transition temperature and UV stable	LED encapsulation, sealing and potting of electronics	
EPOXY POTTING RESINS	U2004		1.1	1.1	3:1	3.3:1	2	45	Clear	82D	47	5	182	4.3	-	0.12	0.22	Low viscosity, thermal shock resistance, class F	Transformers, electronics, small brake coils	
	U2004B		1.1	1.1	3.6:	4:1	2	45	Black	80D	45	6	168	4.5	HB	0.14	0.22	Low viscosity, thermal shock resistance, class F	Transformers, electronics, small brake coils	
	UF810		1.8	1.7	8.75:1	15:1	120	90	Blue	87D		4	160	4.9	-	0.18	0.46	General purpose potting	Coils, general in-fill	
	UF810NL	UL94 V0 	1.78	1.6	3.5:1	6.25:1	40	40	All colours	87D	50	2	180	4.7	VO	0.16	0.44	Flame retardant potting of electronic transformers	Small to medium transformers	
	UF810STB	UL94 V0 	1.87	1.79	10:1	19.8:1	45	45	Black	88D	55	1	200	5.4	VO	0.18	1	High thermal conductivity, flame retardant, Class H	Ballasts, heat sinks	
	UF814		1.18	1.11	1.73:1	3:2	20	45	Black	70D	35	3	250+	3.4	-	0.15	TBC	Flexible, semi-rigid with good adhesion to XLPE, PVC nylon and all metals.	Cable jointing compound	
	UF815		1.05	1.05	2:1	2:1	10	25	Clear	60A	1	45	270	6.2	-	0.18	0.23	Low viscosity, flexible Epoxy resin system. Can be re-enterable for repair	Connectors, sensors	
	UF2004TCB	UL94 HB 	1.77	1.65	5:1	9:1	45	45	Black / Grey	89D	52	4	190	4.8	HB	0.16	0.7	Good thermal conductivity, thermal shock resistance, Class H	Linear motors, transformers, Toroids, small magnets	
	UF2114TC#	UL94 HB 	1.82	1.68	5.5:1	10:1	25	180	All colours	85D	65	1	190	5.2	HB	0.15	1	High thermal conductivity. Resilient & class H with good surface finish. Available in all RAL colours.	Linear motors, transformers, Toroids, small magnets	
	UF2040R		1.73	1.65	5:1	9:1	45	120	White	50D	52	11	190	5.5	HB	0.11	0.6	Flexible for large castings and thermal shock resistance	Large Magnets, Hybrid motors	

All UL recognised products are available for adoption from UL 1446 systems for Class F and Class H under AEV file number E321249