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ULTIGARD

For the Protection, Insulation and Encapsulation of Electronics

	Description	Flame Retardant (UL Approved)	PROCESSING INFORMATION								CURED PROPERTIES							Special Properties	Typical Application
			S.G. Base (g/cm ³)	S.G. Hardener (g/cm ³)	S.G. Mix (g/cm ³)	Mix Ratio (Parts by volume)	Mix Ratio (Parts by weight)	Viscosity Mixed (mPa.s @ 25°C)	Usable Life (500 gms mass mins @ 21°C)	Colour	Hardness (Shore A / D)	Tensile Strength (ISO 527) MPa	Elongation At Break (ISO 527) %	Dielectric Strength (IEC 243-1) kV/cm, Kv/mm	Dielectric Constant (IEC 250) @ 50Hz, @ 1kHz	Water Absorption (ISO 62) % @ 23°C	Thermal conductivity (W/mK)		
POLYURETHANE	PU411		1.3	1.23	1.27	3.8:1	4:1	1900	75	Black	85A	11	55	176	4.5	0.21	0.22	General purpose potting	PCB's, general electronics
	PU430FR	UL94 V0	1.53	1.23	1.45	6:1	4.81:1	2500	45	Black	55D	15	65	200	5.3	0.16	0.56	High flexibility flame retardant	PCB's, general electronics
	PU690FR	UL94 V0, UL746B*	1.57	1.23	1.5	3.5:1	4.4:1	2350	5	Black	85D	32	8	189	4.5	0.18	0.45	Rigid with High RTI	Automotive and High temperature applications
	PU510FR	UL94 V0*	1.53	1.23	1.46	3.95:1	4.77:1	2250	5 - 90	All Colours	75D	27	22	206	4.6	0.18	0.32	Resilient flame retardant	Filters, small coils and Reactors
	PU515		1.21	1.23	1.2	2.38:1	2.2:1	800	10	Black	80D	34	6	184	4.3	0.15	0.21	Low viscosity	Small electronics, intricate and sensitive parts
	PU330		1.5	1.23	1.47	8:1	10:1	2000	10	Off-White	55A/12D	8	62	160	4.4	0.21	0.31	Flexible, digoutable	Ferrite cores, PCB's, small electronics
	PU440TC		2.0	1.23	1.87	5:1	8.13:1	800	10	Black	72D	13	35	155	5.4	0.24	1.02	High thermal conductivity	Electronic units that require heat dissipation
	PU310 Gel		1.01	1.21	1.04	5.3:1	4.43:1	1300	Various	Clear	N/A	N/A	N/A	150	4.4	1.4	0.22	Re-enterable and self-repairing gel system	Sealing joints & cable/wire connections
	PU670		1.05	1.16	1.12	1:1.502	1:1.66	1400	60	Clear	70D	N/A	40	15	N/A	<1.5	0.21	Low viscosity, optically clear, UV stable	LED's, PCB, electronics
	PU450M		1.21	1.23	1.21	6:1	6:1	3700	15	Black	35D	15	95	210	3.9	0.12	0.35	High moisture resistance	Marine applications
EPOXY	EP2300		1.10	1.00	1.08	3:1	3.3:1	200	45	Clear	81D	23	5	182	4.3	0.12	0.22	Low viscosity	Electronics and small brake coils
	EP2305		1.10	1.00	1.08	3.6:1	4:1	200	45	Black	81D	18	6	168	4.5	0.14	0.22	Low viscosity pigmented	Electronics and small brake coils
	EP2110FR	UL94 V0*	1.78	1.00	1.60	3.5:1	6.25:1	4000	40	All Colours	87D	50	2	180	4.7	0.18	0.44	General purpose flame retardant potting	Small to medium electronics
	EP2100		1.06	1.03	1.05	2:1	2:1	1000	70	Amber	60A	N/A	45	270	N/A	0.1	0.23	Flexible and re-enterable	LED's, PCB's, sensitive electronics
	EP2105FR	UL94 V0*	1.87	0.96	1.79	10:1	19.8:1	450	45	Black	88D	25	1	200	5.4	0.18	1	High thermal conductivity, flame retardant	Heat sinks, LED Arrays, Ballasts
	EP2205	UL94 HB*	1.82	0.99	1.68	5.5:1	10:1	250	180	All Colours	85D	65	1	190	5.2	0.15	1	Low viscosity, variable colour	Electronic units that require heat dissipation
SILICONE	SIL550	UL94 V0	1.41	1.41	1.41	1:1	1:1	6000	30	Grey	55A	3.4	120	17.5	2.9	N/A	0.37	High impact resistant	PCB's, general electronics.
	SIL300 Gel		0.97	0.97	0.97	1:1	1:1	630	>45	Clear	N/A	N/A	N/A	18.5	N/A	N/A	N/A	Low temperature flexibility/protection	Sensitive electronics & LED's

Note: * UL QMF22 Recognised under File No: E174454. N/A = Not Applicable

	Description	PROCESSING INFORMATION									CURED PROPERTIES							Approvals		
		Specific Gravity (g/cm ³)	Viscosity (mPa.s @ 25°C)	V.O.C Content (%)	Flash Point (°C)	Solids Content (%)	Touch Dry Time (Minutes @ 21°C)	Through Dry Time (Minutes @ 21°C)	Full Cure (Hours @ 21°C)	Appearance	Dielectric Strength (IEC 243-1) kV/cm, Kv/mm	Insulation Resistance (DEF-STAN 59-47) Ohms/cm	Working Temperature Range (°C)	Solvent Resistance	Humidity Resistance	Mould Resistance	UV Trace		Colour	Thinners
U610	Air Drying Alkyd	0.97	250	58	27	42	15	50	24	Clear liquid	720	10 15	-55 to +155	Good	Good	Excellent	Available	Clear	UT4	RoHs Compliant
U620	High Performing Acrylic	0.91	300	77	24	33	<15	<45	24	Clear liquid	N/D	10 15	-55 to +130	Excellent	Excellent	Excellent	Yes	Clear	UT4	BSEN61086, MIL-I-46058C, Type AR1. QMJU2 (Pending)
U630	Non-VOC Coating	1.01	300	0	>150	100	40	16 hrs*	24	Transparent	18.5	10 15	-55 to +200	Excellent	Excellent	Excellent	Yes	Clear	UT4#	RoHs Compliant
U650	Water-based Coating	1.00	200	0	>100	33	30	60	24	Translucent	N/D	10 13	-55 to +180	Excellent	Excellent	Excellent	Yes	Clear	N/A	RoHs Compliant

* Cure can be accelerated by the use of a humidity oven at 45°C at 100% humidity. # For spray application only. Note: N/D = Not Determined, N/A = Not Applicable

ANCILLARY PRODUCTS - Resin Primers, Coating Thinners, Resin and Coating Removers, Peelable/Removable Masking Compounds and Cleaning products are all available from AEV Ltd. For details contact the Sales Department on **0151 647 3322**.