ULTIMEG RANGE

Electrical Insulating Varnishes & Resins



Guide To Selection

OBOR2 UL Recognised Products
OBJS2 UL Systems
Various Chemistry & Applications

Qualities that Bond

Europe's largest independent manufacturer of insulating varnishes & resins







AEV specialise in the manufacture of electrically insulating resins, varnishes and compounds.

Our products are used in the manufacture of a wide range of electrical machines and electronics, from domestic appliances to industrial products for the defence, energy and transport industries.

The current product range is the result of years of research and development by a highly skilled and dedicated team. Each product has been chemically engineered to deliver advanced performance in its unique application, balanced with responsible sourcing and environmental considerations.

AEV is a family owned company with its main base of operations in the UK. Through growth and acquisition, the AEV brand has evolved into a global group of companies, supplying its range of innovative products from multiple manufacturing locations worldwide.

Solvent Based Varnishes

	Thermal Class	Flash Point	S.G	Shelf life	V.O.C	Viscosity	Typical cure	Bond strength		Dielectric strength		Special property	Application
	Class according to UL1446 (temp°C)	Abel closed cup °C	G/cm3	Months @ 21°C	% age	B4 cup seconds or Poise @ 25°C	hrs @	ASTM D2519 @ 21°C kg	ASTM D2519 @ 150°C kg	ASTM D115 DRY Kv / mm	After 24hrs water immersion		
Oven Cure Varnishes													
U250# - Epoxy Phenolic Epoxy phenolic varnish with excellent Freon and refrigerant gas resistance.	H (180c)	26	1.00	18	58	45	4 hrs @ 150°C	22.7	5.8	150	140	Chemical resistance	Hermetic motors
U200FR - Modified Polyester High quality enveloping protection varnish used where exceptional moisture and chemical resistance is required. Remains flexible.	H (180c)	43	1.00	12	45	75	4 hrs @ 130°C	N/A	N/A	160	140	High Build protection	Transformers / Coils
U370 - Modified Polyester Resilient, high quality quick curing. General purpose varnish for various applications.	H (180c)	43	1.00	18	50	120	3 hrs @ 130°C	18	1.2	159	124	Fast or low temp. cure	Transformers / Motors
*U380 c UL us - Phenolic Modified Polyester UL recognised high build general purpose varnish. Used by many OEM'S and repair shops. UL systems are available.	H (180c)	40	0.90	24	50	130	4 hrs @ 130°C	20.5	1.8	166	120	High bond, tank stable, UL approved	Motors/general purpose
Air Drying Varnishes													
U376 - Alkyd Low viscosity, fast drying sealing and tropicalising varnish for small motors and transformers.	F (155c)	27	0.90	12	68	25	Air drying	N/A	N/A	65	28	Cost effective	Transformers / LV motors / coils
*U372 c UL us - Alkyd High build alkyd air drying varnish. Available in pigmented versions as anti-tracking enamels. UL systems are available.	H (180c)	27	1.00	18	58	180	Air drying	N/A	N/A	72	30	Fast drying, CTi 180	Motors / transformers

Solventless & Water Based Resins

	Thermal Class	Flash Point	S.G	Shelf life	V.O.C	Viscosity	Typical cure	Bond strength		Dielectric strength		Special property	Application
	Class according to UL1446 (temp°C)	Abel closed cup °C	G/cm3	Months @ 21°C	% age	B4 cup seconds or Poise @ 25°C	hrs @	ASTM D2519 @ 21°C kg	ASTM D2519 @ 150°C kg	ASTM D115 DRY Kv / mm	After 24hrs water immersion		
VPI & Dipping Resins													
U510 - Polyester Flexible, high build up polyester resin for application by VPI in transformers. Very good noise reduction properties.	H (180c)	65	1.03	12	5	40	4 hrs @ 130°C	N/A	N/A	140	70	Flexible	Transformers, ferrite cores
***U520 - Unsaturated Polyester** Low odour, high flash point single component resin for VPI, roll and immersion applications. UL systems are available.	H (180c)	166	1.20	12	5	6	4 hrs @ 130°C	22	7	130	81	Not classified as flammable	Motors / Transformers
U540 Pig - Unsaturated Polyester Pigmented impregnation coating for transformers, available in most RAL colours.	H (180c)	31	1.10	12	5	60	2hrs @ 130°C	19	5	155	112	Pigmented impregnation	Transformers
Water Based - Aquameg													
A300 - Polyester General purpose VOC compliant water based varnish.	H (180c)	N/A	1.00	18	3	50	4 hrs @ 130°C	22	3.5	135	112	Cost effective	Motors / Transformers
A850 - Phenolic Modified Polyester VOC compliant water based varnish with high bond strength even when used at low solids levels.	H (180c)	N/A	1.00	18	3	50	4 hrs @ 130°C	22	4.8	139	119	High bond, tank stable	Motors / General Purpose

Ancilliary Products

	Thermal Class	Flash Point	S.G	Shelf life	V.O.C	Viscosity	Typical cure	Bond strength		Dielectric strength		Special property	Application
	Class according to UL1446 (temp°C)	Abel closed cup °C	G/cm3	Months @ 21°C	% age	B4 cup seconds or Poise @ 25°C	hrs @	ASTM D2519 @ 21°C kg	ASTM D2519 @ 150°C kg	ASTM D115 DRY Kv / mm	After 24hrs water immersion		
U705 - Cellulose Acetate Rapid drying, traditional blue masking lacquer.	N/A	<22	1.00	24	65	Thixo	Air drying	N/A	N/A	N/A	N/A	Removable	Masking compound
U720 - HT Masking Grease Masking solution for all types of surfaces prior to Dip or VPI impregnation methods. Protects surfaces from Polyester and Epoxy resins without causing contamination to tanks.	N/A	N/A	0.90	36	0	Grease	No cure	N/A	N/A	N/A	N/A	High temperature	Masking Grease
U2833 - Epoxy Amine A red two component epoxy resin with low filler content. Designed to feature a long pot life to ease processing and may be diluted with Ultimeg T4 thinners for easy spray application. This results in a semi-rigid yet flexible film which resists cracking under strain or bending.	B (130c)	N/A	1.30	12	N/A	70-160	2hrs @ 130c	TBC	TBC	150	112	Long pot life	Spray application
XP3 - Epoxy Two part class H (180c), 1:1 mix ratio, coloured magenta and blue, which when mixed properly gives a uniform Purple to ensure uniform mixing. Fast curing and excellent chemical and physical properties particularly dimensional stability. (Metal, glass, plastics, timber, dry concrete rubber etc). Primarily used as a balancing putty.	H (180c)	> 145c	2.00	12	0	Putty	20-30 min to gel 25g @ R-T	N/A	N/A	N/A	N/A	Class H, Quick Cure	Balancing, gap filling, light ballasts in transformers and sealing
U2220GP - Epoxy Single component filling putty compatible with U2002 & U2220 series Epoxy resins. Fills gaps in windings on rotating or static machines. Available in UL systems.	H (180c)	N/A	2.00	12	0	Putty	3hrs @ 150c	N/A	N/A	210	115	1 component putty	Filling putty rotating machines
UF820 - Epoxy Part A, Part B, brick red, two part 50 / 50 mix. Epoxy protection of stator end windings against moisture, oil, dust and carbon ingress.	B (130c)	N/A	1.68	> 12 Months	0	Thixotropic	4 hours @ 60c	N/A	N/A	N/A	N/A	Thixotropic trowelling compound	Encapsulation of stator end windings
U8000 - Epoxy Multi purpose Epoxy Adhesive. Rapid cure at ambient temperature with extremely high shear and peel strength. Suitable for use in class H systems and U-L recognised in OBJS2 systems, AEV 155-1 and AEV 180-1.	H (180c)	N/A	1.20	12	0	300Ps	5 mins-12 hrs	Roller peel test, Pli (N / mm), ISO 4578; 27 (4.8) N / A		N/A	N/A	High shear and peel strength	Multi purpose Epoxy Adhesive

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Issue 1.6