

ULTIMEG RANGE

Electrical Insulating Varnishes & Resins



Guide To Selection

OBOR2 UL Recognised Products
OBS2 UL Systems
Various Chemistry & Applications

Qualities that Bond

State-of-the-art production processes
Innovative products
International production facilities

Producer of electrical
insulating varnishes,
resins and compounds
to satisfy all global
customer requirements

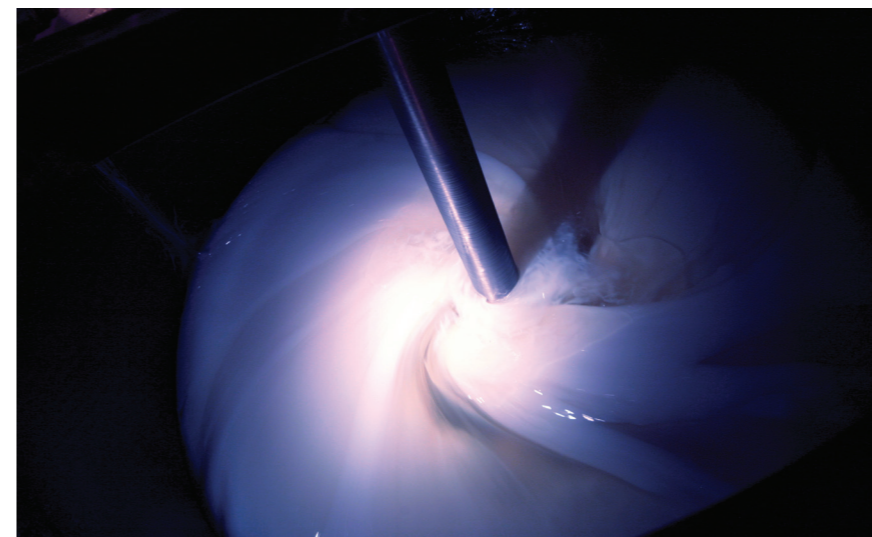


The AEV group, now a member of Isovolta AG, is a leading international manufacturer of electrical insulating resins, varnishes and compounds used in the production of electrical and electronic components around the world.



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.

The AEV brand will continue to grow and thrive under the Isovolta umbrella. 16 production and sales locations in 11 countries, holding laboratories and testing facilities rely on many years of experience in the synthesis and conversion of raw materials into highly reliable, intelligent materials. Material and technology know-how, flexibility and innovative spirit determine product development and characterise the partnership with customers.


16 locations, 1270 employees, dedicated to your success!



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  - 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  - 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 | | | | | | | | | | | | | |
| *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 |

Ancillary 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 Ultmeg 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 |

Notes

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