Member of isovolta GROUP

ULTIMEG RANGE

Electrical Insulating Epoxy Resins

Guide To Selection

VOC Free Epoxy Technology
Non Flammable
UL Recognised products
OBOR2 E220579 & OBJS2 E321249

Qualities that Bond

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

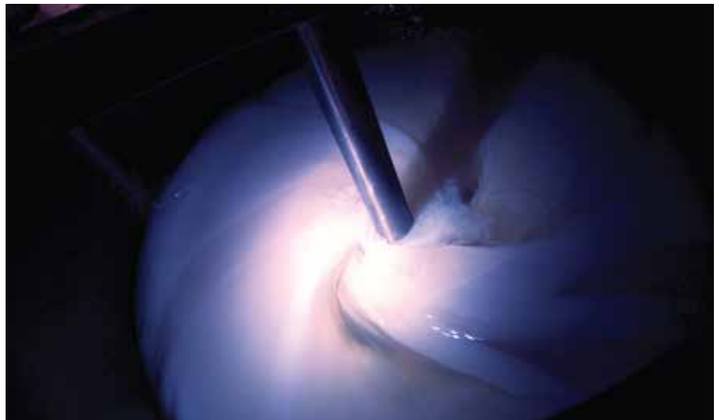
Producer of electrical insulating varnishes, resins and compounds to satisfy all global customer requirements

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!



Epoxy Resins

	Thermal Class	Viscosity	Density	Shelf Life	Typical Cure	Bond Strength ASTM D2519 (N)		Dielectric Strength IEC60243 ($kVmm^{-1}$)		Special Properties	Application
	Class according to UL1446 (temp°C)	mPas @ 25°C	gcm^{-3}	Months @ 21°C	Time @ Temperature	21°C	150°C	DRY	24hr Water Immersion		
Epoxy, single part, VOC free trickle resins											
U2050L c UL us A clear low viscosity, single component Trickle resin suitable for automated trickle application, low / non odour, high bond strength good penetration epoxy resin.	Class H (180°C)	5000 - 7000	1.20	9	5 -7 minutes @ 150°C via Induction Heating	>600N	>70 (TC)	>200	>80	Stable / Single Part / Low Viscosity / Fast Cure Epoxy Resin.	Suitable for O.E.M application as an Alternative to Two Part Polyester Resin Systems.
U2050 c UL us A rapid cure, single part White Epoxy trickle resin with exceptional mechanical and thermal capabilities. Available in RR version in a 0.5kg, hand held flexible bottle, with trickle spout.	Class H (180°C)	10000 - 15000	1.22	9	5 -7 minutes @ 150°C via Induction Heating	>600N	>70 (TC)	>200	>80	White / Rapid Cure @ Low Temperatures / Stable / Single Part Trickle Epoxy.	Power Tool & Automotive Armatures. Quick Repair of AC Motors for the Repair Industry.
U2050GC c UL us A single part, white gel coat resin, particularly designed for the reinforcement of rotating windings, under elevated centrifugal force, such as the single wires on commutators, and where coil leads start and finish.	Class H (180°C)	23000-33000	1.24	4	20 minutes @ 150°c	Tensile Strength ISO527 $35Nmm^{-2}$	Elongation ISO527 1.2%	>168	N/A	White/ Single Part Gel Coat giving 250 - 400µm Build on Windings.	Reinforcement of Enamelled Wire behind Armature Commutator rings.
U2020 High bond strength, ambient cure epoxy trickle resin. Available in Link Packs as an easy dispense option.	Class H (180°C)	300 (mixed)	1.10	24	Ambient Temperature	245	96	110	82	High Bond Strength / Room Temperature Cure / Rapid Bond Strength Development.	Trickle Impregnation of Stators and Rotors. Also used for localised repair.
U2830 A red single component epoxy resin with low filler content. The system is designed to fully cure with short processing times which will result in a semi-rigid film with the flexibility to prevent cracking under strain or bending.	Class B (130°C)	9000 - 12000	1.29	12	2 - 5 hours @ 130 - 150°C	N/A	N/A	150	N/A	Environmental Ingress Protection / Flexible, Crack Resistant Epoxy / Excellent Abrasion Resistance.	Dip & Roll Dip or used as a Surface Coating.

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VPI, Dip, Specialised and standard applications											
U2002L c UL us 0 V.O.C Epoxy impregnation applied by dip / roll / VPI to all general purpose motors and transformers. UL systems are available for all the 2002 range.	Class H (180°C)	350 - 750	1.12	12	4 hours @ 150°C	255	54	120	65	Low Viscosity Epoxy Resin.	General Purpose Motors & Transformers.
U2002T c UL us Higher build Epoxy VPI resin, where traditional film builds of Epoxy are not acceptable.	Class H (180°C)	3000 - 4500	1.15	12	4 hours @ 150°C	363	81	120	63	Higher Film Build Version of U2002L.	Vacuum Impregnation of Low & Medium Voltage Stators. Also suitable for use in Traction Motors and Transformers.
U2002XT c UL us Highest build Epoxy VPI resin, Designed for elevated chemical and mechanical protection, notably in chemical plants, offshore, marine locations and challenging environments.	Class H (180°C)	5500 - 7000	1.15	12	5 hours @ 150°C	441	78	115 (50µm film)	55 (50µm film)	Increased Cured film thickness leading to the highest Chemical & Moisture Resistance of the U2002 range.	Impregnation of random wound machines rated up to 7Kv, offering film builds of 100µM.
U2002HVR c UL us Anhydride-free Epoxy Resin. Global impregnation of HV systems where uncatalyzed Mica tapes are used up to 15kV.	Class H (180°C)	600 - 900	1.14	12	8 hours @ 165°C	304	67	120	85	High Voltage Epoxy Resin / Low Viscosity Facilitating the Impregnation of Tightly Wrapped Conductors.	High Voltage VPI Impregnation of Class H Electrical Machines up to and Including 15kV.
U2006 c UL us A resilient single component VPI epoxy resin with excellent stability and high bond strength and electrical properties.	Class H (180°C)	1000 - 4000	1.15	12	8 hours @ 140°C	424	53	210	115	High Film Build / Bond Strength Over Operating Temperatures.	Vacuum Pressure Impregnation of Low Voltage Motors & Generators.
U2006RD c UL us A solventless, fast gel, single component, slightly thixotropic resin, giving 100% filled windings, with exceptional high bond strength at operating temperatures up to class H (180°C).	Class H (180°C)	2000 - 3500	1.16	12	≤8 hours @ 140°C (Faster Gel Times Available)	440	55	210	110	Ideal for Chemical, Offshore and Marine environment.	Roll Dip/Trickle/VI of Rotating machines especially alternators.
U2220 c UL us A high performance VPI Epoxy resin system that exhibits superior properties at elevated temperatures.	Class R (220°C)	4500 - 7500	1.15	12	8 hours @ 165°C	450	125	190	115	High Thermal Resistance coupled with Excellent Adhesion / Chemical Resistance.	VPI of Traction motors and field coils.

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VPI, Dip, Specialised and standard applications											
U2030HV c UL us A high performance 2-part VPI Epoxy resin system that exhibits low electrical loss at elevated temperatures.	Class H (180°C)	400 - 600 (mixed)	1.15	6	2 hours @ 120°C + 8 hours @ 160°C	Tensile Strength ISO527 $40Nmm^{-2}$	Elongation ISO527 2%	26 (3mm disc)	N/A	High Thermal Resistance coupled with Excellent Adhesion / Chemical Resistance.	High Voltage VPI Impregnation of Class F/H Electrical Machines up to and Including 13.8kV.
Epospin c UL us The next generation impregnation system using magnetic induction for processing.	Up to Class H (180°C)	5000 - 7000	1.18	9	7-10 minutes @ 135°C	>600	70	200	N/A	Impregnation under vacuum with Short Cycle Times. Very low energy consumption. Refrigerant resistant.	General purpose and EV stators.
Wet wound											
U2001WW Thixotropic Wet winding resin with low resin loss and drainage waste that cures to give exceptional bond strength and excellent thermal conductivity.	Class H (180°C)	85 - 115 Pas	1.47	6	4 hours @ 150°C	442	78	100	85	Excellent Hot Bond Strength / Heat Dissipation.	Wet Winding of Field Coils and Rotor Windings.
Wound cores											
U2004LN A high performance, resilient product specifically designed for dipping and vacuum pressure impregnation of wound cores. Also suitable for equipment requiring resilience and flexibility in the cured product.	Class H (180°C)	400 - 600	1.12	12	4 hours @ 165°C	Tensile Strength ISO527 $18Nmm^{-2}$	Elongation ISO527 10%	175	130	Low Viscosity Coupled with Low Secondary Drainage resulting in Low Resin Losses.	Dipping and Vacuum Pressure Impregnation of wound cores. Also suitable for equipment requiring resilience and flexibility e.g. HT transformers.
Water based											
U2002AQ c UL us Environmentally Friendly, Zero VOC, Water Based Epoxy Emulsion for the Impregnation of Low Voltage Motors in particular Hermetically Sealed Stators.	Class H (180°C)	20 - 50	1.09	12	4 hours @ 150°C	196	29	118	90	High Chemical & Refrigerant Resistance / No Organic Solvents / Low Viscosity to Aid Penetration into Tight Windings.	General Impregnation Resin for all Low Voltage Motors. Ideal for use in the HVAC Industry.