

Technical Datasheet



AROPOL™ IS 4633

AROPOL IS 4633 is a thixotropic, preaccelerated, isophthalic based, medium reactivity resin with good mechanical properties. The colour of the resin is bluish.

Typical liquid resin properties

Property at 25 C	Value	Unit	Method
Viscosity, Brookfield RV2, 2 rpm	2000	mPas	ISO 2555
Viscosity, Brookfield RV2, 20 rpm	600	mPas	ISO 2555
Thixotropic index	3,1		
Styrene content	44	%	DS-09-143
Geltime at 20 C, 1,5% MEKP-50	45	min	DS-09-129
Gel time to peak	60	min	DS-09-129
Peak exotherm	110	°C	DS-09-129
Acid value	22		DS-09-119

Typical cured resin properties

Property	Value	Unit	Method
Tensile strength	60	MPa	ISO 527
Tensile modulus	4100	MPa	ISO 527
Elongation at break	3,2	%	ISO 527
Flexural strength	105	MPa	ISO 178
Flexural modulus	3800	MPa	ISO 178
Heat deflection temperature (HDT)	85	C	ISO 75/2 (A)
Barcol hardness	42		ASTM D2583

Application and use

AROPOL IS 4633 resin is suitable for spray-up and hand lay-up application for manufacturing different types of composites exposed to a corrosive environment and/or composites where good mechanical properties are important.

The following table shows mechanical properties of a AROPOL IS 4633 laminate (2 % MEKP-50) built



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on 2 x 450 g/m² and 1 x 600 g/m² woven roving and a glass content of 35 %.

Test	Value	Method
Tensile strength (kg/cm ²)	2,000-2,200	ASTM D638
Tensile modulus (kg/cm ²)	80,000-85,000	ASTM D638
Flexural strength (kg/cm ²)	2,500-2,600	ASTM D780
Flexural modulus (kg/cm ²)	75,000-80,000	ASTM D780
Compression strength (kg/cm ²)	1,300-1,500	ASTM D695
Compression modulus (kg/cm ²)	70,000-73,000	ASTM D695

AROPOL IS 4633 resin can be coloured with standard colourants/pigments used in polyester resins. To achieve a good product surface cure, it is advisable to add 0,04-0,08 % paraffine to the resin.

Due to its good mechanical properties, AROPOL IS 4633 resin is suitable for production of a variety of FRP products for the building and construction, agricultural, electrical and marine markets.

Certificates and approvals

The manufacturing, quality control and distribution of products, by Ashland Performance Materials, are complying with one or more of the following programs or standards: Responsible Care, ISO 9001, ISO 9002, ISO 14001 and OHSAS 18001. This resin is approved by Lloyd's Register

Handling and storage

It is highly recommended that all material is stored at stable temperatures under 25°C preferably indoors, and away from direct sunlight. Prolonged storage outside of recommended conditions can influence liquid resin properties like viscosity and gel time. It is also strongly recommended to mix resin thoroughly before use. Shelf life of AROPOL IS 4633 is three (3) months.



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