

aropol®  
unsaturated  
polyester resins

AROPOL®

## 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	2300	mPas	ISO 2555
Viscosity, Brookfield RV2, 20 rpm	650	mPas	ISO 2555
Thixotropic index	3,5		
Styrene content	44	%	DS-09-143
Geltime at 20 C, 1,5% MEKP-50	45	min	DS-09-129
Time to peak	48	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 on 2 x 450 g/m<sup>2</sup> and 1 x 600 g/m<sup>2</sup> woven roving and a glass content of 35 %.

Test	Value	Method
Tensile strength (kg/cm <sup>2</sup> )	2,000-2,200	ASTM D638
Tensile modulus (kg/cm <sup>2</sup> )	80,000-85,000	ASTM D638
Flexural strength (kg/cm <sup>2</sup> )	2,500-2,600	ASTM D780
Flexural modulus (kg/cm <sup>2</sup> )	75,000-80,000	ASTM D780



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Compression strength (kg/cm <sup>2</sup> )	1,300-1,500	ASTM D695
Compression modulus (kg/cm <sup>2</sup> )	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.

### Notice

All information presented herein is believed to be accurate and reliable, and is solely for the user's consideration, investigation and verification. The information is not to be taken as an express or implied representation or warranty for which Ashland assumes legal responsibility. Any warranties, including warranties of merchantability or non-infringement of intellectual property rights of third parties, are herewith expressly excluded.

Since the user's product formulations, specific use applications and conditions of use are beyond the control of Ashland, Ashland makes no warranty or representation regarding the results which may be obtained by the user. It shall be the responsibility of the user to determine the suitability of any of the products mentioned for the user's specific application.

Ashland requests that the user reads, understands and complies with the information contained herein and the current Material Safety Data Sheet.



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