

AROPOL® IS 4633-25 General Purpose Resin

AROPOL IS 4633-25 is a semi-rigid, medium reactivity isophthalic, thixotropic and preaccelerated unsaturated polyester resin.

Typical liquid resin properties

Property at 25 °C	Value	Unit	Method
Viscosity, Brookfield RV2, 2 rpm	1500 min	cps	ISO 2555
Viscosity, Brookfield RV2, 20 rpm	550	cps	ISO 2555
Thixotropic index	3	min	
Styrene content	44	%	DS-09-143
Geltime at 20 °C , 1,5% MEKP-50	25	min	DS-09-129
Gel Time to peak	35	min	DS-09-129
Peak exotherm	130	°C	DS-09-129
Acid value	30	Max	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
Heat deflection temperature (HDT)	85	°C	ISO 75 (A)
Barcol hardness	45		ASTM D2583

Application and use

AROPOL IS 4633-25 is normally used for the preparation of components, which must have excellent mechanical properties as well as excellent resistance to other aggressive chemical environments and good dimensional stability.

Since Aropol IS 4633-25 is a preaccelerated, thixotropic resin, it is characterized by its high strength retention what makes the resin appropriate for use in vertical, inclined applications. Moreover, the resin provides an optimum fibre impregnation. AROPOL IS 4633-25 can be used with other polyester resins as well as those inorganic pigments, which are commonly used with this type of resins.

If parts surface is exposed to air, it is advisable to add from 0.04-0.08% paraffin in order to improve its polymerization.

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



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Due to its good mechanical properties, AROPOL IS 4633-25 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 Composite Polymers, are complying with one or more of the following programs or standards: Responsible Care, ISO 9001, ISO 9002, ISO 14001 and OHSAS 18001 by BVQI. This resin is approved by Lloyd's Register

Handling and storage

It is highly recommended that all material is stored at stable temperatures under 20°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 4633-25 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.

More information

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