

Technical Datasheet

INEOS Composites

ENGUARD™ GE // H/ HH/ S General purpose gelcoats

ENGUARD GE gelcoats are high quality general purpose gelcoats based on isophthalic polyester resin. The base resin and the gelcoat formulas are optimized to give final products good mechanical and weathering properties.

Typical properties of liquid gelcoat

Property at 23 °C	H (Brush)	HH (Brush; high viscosity)	S (Spray)	Unit	Method
	Value	Value	Value		
Viscosity, Brookfield	11000 ¹⁾	22000 ²⁾	7000 ³⁾	mPas	ISO 2555
Viscosity, cone & plate	800		230	mPas	ISO 2884
Geltime, 2,0% MEKP-50	13	13	7	min	ASTM D2471

1) 4RV,10rpm; 2) 7RV,10rpm ; 3) 5RV,10rpm

Typical properties of gelcoat base resin

Property (postcure 24 h at 50 °C)	Value	Unit	Method
Tensile strength	70	MPa	ISO 527
Tensile modulus	3600	MPa	ISO 527
Elongation at break	3,5	%	ISO 527
Flexural strength	115	MPa	ISO 178
Flexural modulus	3500	MPa	ISO 178
Heat deflection temperature	70	°C	ISO 75 (A)
Water absorption at 28 days	80	mg/sample*	ISO 62
Hardness	42	Barcol	ASTM D2583

* 50x50x4 mm*

Application and use

ENGUARD GE gelcoats are general purpose gelcoats, which are suitable for use in variety of products in the building and construction industry, transportation and marine industry.

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Certificates and approvals	<p>ENGUARD GE gelcoat complies with the requirements set by the Lloyd's Register for building of small crafts</p>
	<p>The manufacturing, quality control and distribution of products, by INEOS Composites, are complying with one or more of the following programs or standards: ISO 9001, ISO 14001 and OHSAS 18001.</p>
Handling and use	<p>For good handling and working practices, see INEOS Composites "Gelcoat Handling Guide". It is highly recommended that all materials are stored at stable temperature under 25 °C preferably indoors, and away from direct sunlight. A high quality methyl ethyl ketone peroxide (MEKP) catalyst should be used between 1.5 - 2.5%. The gelcoat with the catalyst must be gently stirred before taken in use.</p> <p>The material should be used within 5 months from the date of manufacture. Prolonged storage or storage outside of recommended conditions can influence gelcoat liquid properties like viscosity and gel time and it is recommended to test these properties before starting application.</p>
Notice	<p>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 INEOS Composites assumes legal responsibility. Any warranties, including warranties of merchantability, fitness for use or non-infringement of intellectual property rights of third parties, are herewith expressly excluded.</p> <p>Since the user's product formulations, specific use applications and conditions of use are beyond the control of INEOS Composites, INEOS Composites makes no warranty or representation regarding the results which may be obtained by the user. It shall be the sole responsibility of the user to determine the suitability of any of the products mentioned for the user's specific application.</p> <p>INEOS Composites requests that the user reads, understands and complies with the information contained herein and the current Material Safety Data Sheet.</p>