

## Technical Datasheet

# INEOS Composites

## MAXGUARD™ GN // H<sub>-</sub> ; S<sub>-</sub> premium gelcoat / INSTINT

MAXGUARD GN // H<sub>-</sub> ; S<sub>-</sub> premium gelcoats are based on a special isophthalic/NPG resin. The base resin and the gelcoat formulas are optimized to give final products excellent mechanical and weathering properties. The surface of Maxguard GN premium gelcoat is hard, glossy and tough and it is highly resistant to UV-radiation, gloss deterioration and hydrolysis.

MAXGUARD GN // H<sub>-</sub> ; S<sub>-</sub> gelcoats are available via INSTINT Color Service in two different geltimes (A) and (C).

### Typical liquid gelcoat properties

Properties at 23 °C	H <sub>-</sub> (Brush)	S <sub>-</sub> (Spray)	Unit	Method
	Value	Value		
Viscosity, Brookfield RV5, 10 rpm	11000	7000	mPas	ISO 2555
Viscosity, cone&plate	900	270	mPas	ISO 2884
Geltime, 2% MEKP-50	HA: 13	SA: 7	min	ASTM D2471
Geltime, 2% MEKP-50	HC: 22	SC: 18	min	ASTM D2471

### Typical gelcoat base resin properties

Properties (postcure 24h 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	125	MPa	ISO 178
Flexural modulus	3600	MPa	ISO 178
Heat deflection temperature (1,81 MPa) 1)	90	°C	ISO 75 (A)
Water absorption , 28 days	75	mg/sample	ISO 62
Hardness	41	Barcol	ASTM D2583

1) postcured 24h at 50°C + 3h at 80°C

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Application and use	MAXGUARD GN premium gelcoats are recommended for use in the sanitary, marine or similar industries with high demand of surface properties of composite products.
Certificates and approvals	<p>MAXGUARD GN gelcoats are approved by classification societies like Det Norske Veritas, Lloyd's Register and Germanischer Lloyd's for construction of small crafts.</p> <p>Wash basins with Maxguard GN // H gelcoat surface complies with the American Thermal Shock test ANSI Z124.3-86 for sanitary applications.</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 by .</p> <p>MAXGUARD GN // H_ ; S_ gelcoats fulfill the mechanical property requirements of DIN 16946 standard for unsaturated polyester resin classes 1130 and 1140.</p>
Handling and storage	<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	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.

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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.

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