

# Technical Datasheet

# INEOS Composites

## MAXGUARD™ GN // H/S Premium Iso/NPG Gelcoat

MAXGUARD GN // H/S are premium gelcoats based on a special isophthalic/NPG resin. The base resin and the gelcoat formula are optimized to give final products excellent mechanical and weathering properties. MAXGUARD GN // H/S premium gelcoat surfaces are hard, glossy and tough and they are highly resistant to UV-radiation, gloss deterioration and hydrolysis.

### Typical liquid gelcoat properties

| Properties at 23 °C               | H (Brush) | S (Spray) | Unit | Method     |
|-----------------------------------|-----------|-----------|------|------------|
|                                   | Value     | Value     |      |            |
| Viscosity, Brookfield RV5, 10 rpm | 13000     | 7000      | mPas | ISO 2555   |
| Viscosity, cone&plate             | 900       | 250       | mPas | ISO 2884   |
| Geltime, 2% MEKP-50               | 13        | 7         | 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)<br>*)* | 90           | °C        | ISO 75 (A) |
| Hardness                                      | 41           | Barcol    | ASTM D2583 |
| Water absorption , 28 days / 7days/ 24 hours  | 75 / 42 / 11 | mg/sample | ISO 62     |

\*) post cured 24h at 50 °C + 3h at 80°C\*

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|                            |   |
|----------------------------|---|
| Application and use        | MAXGUARD GN // H/S 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 // H/S 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/S gelcoat surfaces 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.</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                     | <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</p> |

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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.

#### More Information

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