Certificate no.:
TAK00002D0

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Polyester Resins

with type designation(s)
AROPOL™ S 60 Series Low Styrene Content DCPD-Based Resins

issued to
Ineos Composites Finland Oy
Kulloo, **Finland**

is found to comply with
DNV class programme DNV-CP-0083 – Type approval – Polyester resin, vinylester resin, gelcoat and topcoat

Application:

Grade 2 resin for use in marine vessels.

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Hamburg** on **2024-07-01**
This Certificate is valid until **2029-06-30**.
DNV local unit: **Finland CMC**

for **DNV**

Approval Engineer: **Gisle Hersvik**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

Product description

AROPOL™ S 60 Series Low Styrene Content DCPD-Based Resins

- Dicyclopentadiene (DCPD)
- for infusion- and (Injection-) RTM-processes

Approved Variants

AROPOL™ S 60 XXXXXXXX	Pre-accelerated, Thixotropic
AROPOL™ S 60 XXXXXXXX	Pre-accelerated
AROPOL™ S 60 XXXXXXXX	Thixotropic

where XXXXXXXX refers to colour, geltime, viscosity modification.

Low Styrene Emission (LSE) versions not included.

Manufactured by

Ashland France SAS, ZI NORD, 8 rue des Fontangues, Etain, 55400, France

DNV local station: Paris

INEOS Composites Finland Oy, Muovitie 35, FI-06850 Kulloo, Finland

DNV local station: Helsinki

Responsibility

The Company (stated on the front page of this Certificate) takes the responsibility that both design and production are in compliance with Rules, Standards and/or Regulations listed on page 1 of this certificate.

Application/Limitation

The resin properties meet ISO 12215-1 Type B requirements.

Any significant changes in design and / or quality of the material will render the approval invalid.

Type Approval documentation

Tests carried out

Type Testing carried out in accordance with **Type Approval documentation**.

Marking of product

Product/package shall be marked with *manufacturer's name:* **INEOS Composites**, *place of production, type designation* and *date of production/batch number*.

The marking is to be carried out in such a way that it is visible, legible and indelible. The marking of product is to enable traceability to the DNV Type Approval Certificate.

Periodical assessment

The scope of the Periodical Assessment is to verify that the conditions stipulated for the Type Approval is complied with and that no alterations are made to the product design or choice of materials.

Periodical assessments (for Certificate Retention / Certificate Renewal) shall be performed according to DNV-CP-0338.

This certificate is only valid if required Periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in https://approvalfinder.dnv.com

END OF CERTIFICATE