



DET NORSKE VERITAS TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. K-2881

This Certificate consists of 2 pages

This is to certify that the

Polyester Resins

332.20

with type designation(s)

**AROPOLTM M 105 with the following LSE variants;
M 105 TA, M 105 TB, M 105 TC, M 105 TAR, M 105 TBR,
M 105 TBX, M 105 T and M 105 TCR**

Manufactured by

Ashland Finland Oy

PORVOO, Finland

is found to comply with

Det Norske Veritas' Tentative Rules for Certification and Classification of Boats 1997, Grade 2

Det Norske Veritas' Rules for Classification of High Speed and Light Craft, Grade 2

Nordic Boat Standard 1990, Grade 2

Application

For use in marine vessels according to stated Rules/Standards.

Place and date

Høvik, 2006-05-08

for Det Norske Veritas AS

This Certificate is valid until

2009-12-31

John Olav Nøkleby

Head of Section

Local Office

DNV Helsinki

Gisle Hersvik

Surveyor

Product description

AROPOLTM M 105; Polyester resin series with the following Low Styrene Emission (LSE) variants;

M 105 TA pre-accelerated, thixotropic, short geltime

M 105 TB pre-accelerated, thixotropic, medium geltime

M 105 TC pre-accelerated, thixotropic, long geltime

M 105 TAR pre-accelerated, thixotropic, modified curing

M 105 TBR pre-accelerated, thixotropic, medium geltime, modified curing

M 105 TBX pre-accelerated, thixotropic, medium geltime, modified curing

M 105 T non-accelerated, thixotropic

M 105 TCR pre-accelerated, thixotropic, long geltime, modified curing

Type Approval documentation

Tests carried out

Type Testing carried out according to **Type Approval documentation**.

Marking of product

Product shall be marked with *manufacturer's name*; **Ashland Finland Oy, Porvoo** and *type designation*.

Certificate Retention/Renewal Survey

The scope of the Retention/Renewal Survey 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.

Survey to be performed after two (2) years (Certificate Retention Survey) and at renewal after four (4) years (Certificate Renewal Survey).

The main elements of the survey are:

- Ensure that **Type Approval documentation** is available.
- Review: design, materials, production process, and performance with respect to possible changes, in order to ensure compliance with **Type Approval documentation** and/or referenced material specifications.
- Ensure traceability between manufacturer's product marking and the DNV Type Approval Certificate.

END OF CERTIFICATE

Notice: This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.
