DNV·GL

Certificate No:
TAK00001VY

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Epoxy Systems

with type designation(s)
DURATEK 1000 Expoy based fibre lamination resin

Issued to
Duratek Koruyucu Malzemeler San.Tic.A.S.
Istanbul, Turkey

is found to comply with
DNV GL class programme DNVGL-CP-0089 – Type approval – Epoxy resin systems

Application :

Laminating resin for construction of laminates made of fibre reinforced plastics.

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

Issued at **Høvik** on **2020-04-17**
This Certificate is valid until **2025-04-16**.
DNV GL local station: **Istanbul**

Approval Engineer: **Gisle Hersvik**

for **DNV GL**

Gustav Heiberg
Head of Section

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.

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Product description

DURATEK 1000 Expoy based fibre lamination resin; Two-component bisphenol-A type epoxy resin system.

Approved variants:
DURATEK 1000 (DTE 1000) with following type hardeners:
- DTS 1100 (fast hardener),
- DTS 1105 (slow hardener) and
- DTS 1110 (extra slow hardener).

Material Properties

Properties	DTE 1000/DTS 1100	DTE 1000/DTS 1105	DTE 1000/DTS 1110	Unit
Viscosity	850 – 1050	400 – 800	300 - 600	mPas
Density	1,05 – 1,15	1,05 – 1,15	1,05 – 1,15	kg/lt
Pot life	30 – 50	310 – 410	600 - 750	minutes

Place of manufacture

KİMAR Kimyasal Ara Maddeleri San. ve Tic. A.Ş., Gebze Organize Sanayi Bölgesi 700.Sok.No:720, 41480 Gebze-Kocaeli, Turkey

DNV GL local station: Istanbul

Application/Limitation

Applicable for the construction of FRP-laminates, on condition that the resin is compatible to fibre reinforcements, adhesives and core materials.

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, place of manufacture* and *type designation*.

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 GL 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 and Certificate Renewal) shall be performed according to DNVGL-CP-0338.

Job Id: **262.1-033349-1**
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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.dnvgl.com

END OF CERTIFICATE