

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Epoxy Systems**

with type designation(s)
DURATEK 1200 Epoxy 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 **2020-09-23**

This Certificate is valid until **2025-09-22**.

for **DNV GL**

DNV GL local station: **Istanbul**

Approval Engineer: **Gisle Hersvik**

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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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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.



Job Id: **262.1-034416-1**
Certificate No: **TAK00001YH**

Product description

DURATEK 1200 Epoxy based fibre lamination resin; Two-component bisphenol-A type epoxy resin system.

Approved variants:

DURATEK 1200 (DTE 1200) with following type hardeners:

- DTS 2110 (fast hardener),
- DTS 1151 (medium slow hardener) and
- DTS 1155 (extra slow hardener).

Material Properties

Properties	DTE 1200/DTS 2110	DTE 1200/DTS 1151	DTE 1200/DTS 1155	Unit
Viscosity	300 – 400	250 – 350	225 – 325	mPas
Density	1,05 – 1,15	1,05 – 1,15	1,05 – 1,15	kg/lt
Pot life	60 – 80	160 – 200	300 – 400	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.



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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