

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Flexible hoses of non-metallic material without permanently fitted couplings

with type designation(s)
MTL 5024

Issued to

Gummiwarenfabrik Emil Simon GmbH & Co. KG
Neulussheim, Germany

is found to comply with

Det Norske Veritas' Rules for Classification of Ships Pt.4, Ch.6 "Piping Systems"
ISO 15540 / 15541 – Fire resistance of hose assemblies

Application :

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

Temperature range: -30°C up to +100°C

Max. working press.: 5.0 bar

Sizes: DN50 up to DN150

Issued at **Hamburg** on **2018-02-28**

This Certificate is valid until **2023-02-27**.

DNV GL local station: **Augsburg**

for **DNV GL**

Approval Engineer: **Hagen Markus**

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Olaf Drews
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.



Job Id: **262.1-027329-1**
Certificate No: **TAP00001A3**

Product description

Inside layer	Polychloroprene (CRF)
Reinforcement	Polyamide (Aramid)
Intermediate layers	CRF / silicate fabric / CRF / silicate fabric
Cover	Polychloroprene (CRF)

Application/Limitation

The fire resistant flexible hose of type MTL 5024 is type approved for application in fresh cooling water systems of combustion engines and compressors with independent cooling system.
The hose is to be connected to the metallic piping system by double hose clamps on each side.
Refer to DNVGL Rules Pt.4, Ch.6 – Section 9 – 4.1.4.

Production testing

Every hose shall be hydrostatically tested at a pressure of 7.5 bar before installation on board.

Type Approval documentation

Tests carried out

Marking of product

For traceability to this certificate each hose length is to be provided with permanently marking as follows:

Scope	Example
Manufacturer	ES
Class	DNV GL
Date	2018-02-16

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Periodical assessment

For retention of the type approval certificate periodical assessments shall be carried out at production places by DNVGL surveyor.

The objective of the periodical assessment is to verify that the design and production conditions for the type approval have not been altered.

Main scope of the assessment:

- verification of the production and quality control system
- review of quality control documentation of recent deliveries
- review of drawings in production to verify any design changes which may have an impact on data specified in the type approval certificate, performance and range of application
- verification of the product marking

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

End of certificate