DNV·GL

Certificate No:
TAP0000162

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Flexible Hoses of Non-Metallic Material with Permanently Fitted Couplings

with type designation(s)
SM SCR 5,5x3 EPDM/CIIR/PA/EPDM, SM SCR 7,5x3 EPDM/CIIR/PA/EPDM

Issued to
ContiTech Techno-Chemie GmbH
Hoppegarten, Germany

is found to comply with
DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV GL class programme DNVGL-CP-0183 – Type approval – Flexible hoses

Application :

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Type:	Temperature range:	Max. working press.:	Sizes:
SM SCR 5,5x3 EPDM/CIIR/PA/EPDM	-40°C to +85°C	10 bar	DN 5
SM SCR 7,5x3 EPDM/CIIR/PA/EPDM	-40°C to +85°C	10 bar	DN 8

Issued at **Høvik** on **2018-01-11**
This Certificate is valid until **2023-01-10**.
DNV GL local station: **Augsburg**

for **DNV GL**

Approval Engineer: **Christian Kaemmer**

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.

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Job Id: **262.1-027516-1**
Certificate No: **TAP0000162**

Product description

Flexible non-metallic hose consisting of EPDM/CIIR inner tube. The tube is reinforced by a single layer polyamid. Outer tube consisting of EPDM.

Materials:

Inner/Outer Tube:	EPDM/CIIR
Reinforcement:	Polyamid
Coupling:	ARaymond/ Rayconnect 5,5 & 7,5

Size and pressure:

Hose type	Size	Nominal Pressure
H0 9105 000 000	DN 5	10 bar
H0 9108 000 000	DN 8	10 bar

Application/Limitation

Hose assemblies covered by this type approval certificate are approved for Urea-solution /AdBlue, for use in urea based systems. Not Approved for flammable media and seawater systems.

Flexible hoses are only to be used in short lengths where it is necessary due to vibrations or flexible mounting of the machinery. The hoses shall not replace/be used where permanent piping is possible/required.

Installation

The hose assemblies must only be fitted in places where they are always accessible.

Flexible hoses of these types are not to be used on boiler fronts.

The hoses are to be mounted in accordance with the manufacturer's instructions and installation instructions acc. to DNVGL-Rules "Ships" – Part 4 Chapter 6.

It must be possible to shut off the flexible hoses from the system.

Hose assemblies with couplings made of carbon steel are not to be used at temperatures below -10°C unless the material is normalized.

Type Approval documentation

Tests carried out

Production testing

All hose assemblies shall be subject to a pressure test at 1.5 times the maximum working pressure and shall be delivered with the pressure test report with reference to the type approval certificate.

Marking of product

For traceability to this type approval, each hose assembly is to be marked with:

Manufacturer's name: Contitech
Part No.
Date of manufacturer Week / Year

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.

In connection with the renewal assessment, a surveyor shall witness / review test reports with respect to the following tests on every 3rd size appropriate test reports to be submitted:

- dimensional check, change in length test,
- pressure test with 1.5 times M.A.W.P. and burst test (witnessed by DNV GL surveyor)