



# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMT00000J0**  
Revision No:  
**2**

This is to certify:

That the Manufacturer  
**OLEUM FLEX d.o.o.**  
Lučko, Croatia

is approved for the  
**Assembling of type approved hoses and couplings**

The approval is granted on condition that  
**DNV class programme DNV-CP-0183 – Type approval – Flexible non-metallic hoses**

are complied with in all respect

**Hose: Non-metallic high-pressure flexible hose assembly**

Manufacturer approved by this certificate is accepted to deliver according to DNV GL, DNV and GL rules.

Issued at **Hamburg** on **2024-06-24**

for **DNV**

This Certificate is valid until **2027-05-23**.

DNV local unit: **Rijeka**

Approval Engineer: **Christian Kaemmer**

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**Sven Klinger**  
**Head of Section**

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

This Certificate is subject to terms and conditions overleaf. Any significant change in production facilities and methods may render this Certificate invalid.



## Approval basis

The below listed hose assemblies are type approved according to the specifications/technical data mentioned in Type Approval Certificate:

| Manufacturer                      | Flexible hose              |  | Type Approval Certificate |
|-----------------------------------|----------------------------|--|---------------------------|
|                                   | Type                       | Other brand name   |                           |
| <b>Alfagomma Hydraulics S.p.A</b> | <b>Flexopak 1SC</b>        | Flexopak 1SC/Slimline Plus 121T/ ARGUS 1SC / Dunlop Hiflex                                       | <b>TAP00000YK</b>         |
|                                   | <b>Flexopak 2SC HF</b>     | Flexopak2SC HF/ Slimline Plus 221T,221G / ARGUS / Dunlop Hiflex                                  |                           |
|                                   | <b>Flexopak 2</b>          | Flexopak2 & Flexopak2 Supertuff/Super Slimline 241T & Super Slimline 241X TUFLEX / Dunlop Hiflex |                           |
| <b>Alfagomma Hydraulics S.p.A</b> | <b>Flexor 1SN / 1AT-HF</b> | Dunlop Hiflex Greenline plus 122   | <b>TAP000002W</b>         |
|                                   | <b>Flexor 2SN / 2AT-HF</b> | Dunlop Hiflex Greenline plus 122   |                           |
|                                   | <b>1SN Minetuff</b>        | Dunlop Hiflex 1SN HI-TUFF  |                           |
|                                   | <b>2SN Minetuff</b>        | Dunlop Hiflex 1SN HI-TUFF  |                           |

Couplings made of carbon steel or stainless steel: H1200AD1; 1200TX2

The selection of the hose assemblies for the corresponding application and the right installation are to be in accordance with the specifications of the manufacturer.

## Documents

- Test Plan
- Authorization letter « Alfagomma dated »
- Working instruction « Final Assembly Control » UPK-026
- Technical datasheets : Crimping machine, test-bench, cutting machine, skiving machine
- Crimping table
- List of authorized persons
- Brochure « Hose assembling training course »
- Burst Pressure Test Reports dated 2021-02-17
- Initial Hose Assembling Assessment Report dated 2021-02-17

### AMT00000J0 rev1 :

- List of hoses to be approved - test plan
- List of assembling machines dated 05-04-2024
- Declaration as hose assembler dated 05-04-2024
- Alfagomma Declaration as hose assembler dated 21-04-2024
- Crimping table 3 pages
- List of authorized persons dated 05-04-2024
- Type Approval Assessment Report dated 2024-05-23

### **Marking**

For identification and traceability purposes, each hose assembly permanently is to be marked as required by the respective Type Approval Certificate.

### **Production testing**

Each manufactured hose assembly is subject to a pressure testing as required by the relevant regulation and as marked on the hose assembly Type Approval Certificate, but at least in accordance with the respective DNV Rules, with 1.5 times the maximum working pressure.

### **Remark**

For determination of the maximum working pressure of the hose assembly both, the maximum operating pressures of the hose end fitting and hose type, as specified in the latest manufacturer product catalogues, are to be considered.

### **Product certification**

In case of orders according to GL Rules, a DNV product certificate of the manufactured and pressure tested hose assemblies issued by DNV is mandatory.  
Otherwise, a 3.1 customer Work Certificate is required and sufficient.

### **Certificate Retention Survey**

The approval is valid for three years. To maintain the approved status, the manufacturer must be reinspected every three years. Application for renewal should be made not later than three months before the expiry date of the certificate.

Any alteration to the approved condition during the period of validity, e.g. method of manufacture, maximum dimensions or conditions of supply, is to be reported to the Society.

A re-inspection and/or re-testing may be required when deemed necessary by the Society.