



TYPE APPROVAL CERTIFICATE
No. MAC338422CS

This is to certify that the product identified below is in compliance with the regulations herewith specified.

<i>Description</i>	Non metallic flexible hoses
<i>Type</i>	FLEXOPAK 2
	SUPERSLIMLINE 241
<i>Applicant</i>	ALFAGOMMA HYDRAULIC SPA
	VIA ENRICO MATTEI 6
	64020 CASTELNUOVO VOMANO (TE)
	ITALY
<i>Manufacturer</i>	ALFAGOMMA HYDRAULIC SPA
<i>Place of manufacture</i>	VIA ENRICO MATTEI 6
	64020 CASTELNUOVO VOMANO (TE)
	ITALY
<i>Reference standards</i>	Part C, Chapter 1, Section 10 of RINA Rules

Issued in **Genova** on **April 17, 2023**. *This Certificate is valid until* **April 14, 2028**

RINA Services S.p.A.
Rosario Pitruzzo

This certificate consists of this page and 1 enclosure

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FLEXOPAK 2

SUPERSLIMLINE 241

Reference documents

Alfagomma catalogue

Alfagomma data sheet edition 17 dated 1/10/2020

Technical drawings and Test report Reviewed and archived with letters:

CDST/2021/00950/CRLVA

PPVT/2021/00965/CRLVA

PPVT/2021/00985/CRLVA

PPVT/2022/64/CRLVA

PPVT/2022/65/CRLVA

Hose Fitting Combination dated 07/12/2021

Hose fitting combination as per dwg PPVT41147 dispatched with approval letter PPVT/2023/388/CRLVA

Applicable specifications

Alfagomma type designation:

Flexopak 2 acc. 2SC-EN 857 and 100R16 acc. SAE J517

Dunlop Hiflex type designation:

Superslimline 241 acc. 2SC-EN 857 and 100R16 acc. SAE J517

Technical characteristics

Temperatures range: -40 °C / +100 °C

Maximum working pressure according to the following table:

DN			Maximum working pressure (bar)
mm	inch	dash	Flexopak 2 Superslimline 241
6	1/4	4	420
8	5/16	5	375
10	3/8	6	350
12	1/2	8	310
16	5/8	10	280
19	3/4	12	240
25	1	16	210
32	1 1/4	20	140
38	1 1/2	24	125
51	2	32	100
63	2 1/2	40	75
76	3	48	70

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FLEXOPAK 2

SUPERSLIMLINE 241

Materials/Components

Inner tube:	oil resistant synthetic nitrile rubber
Reinforcement:	two braids of high tensile steel wire
Cover:	abrasion resistant, ozone and hydrocarbon synthetic rubber
Couplings:	Carbon steel 11SMnPb30 or Stainless steel AISI 316

Places of manufacture:

Hoses:

ALFAGOMMA HYDRAULIC SPA - Via E. Mattei, 6 - 64020 Castelnuovo Vomano (TE)

Manufacturing plants:

64020 Castelnuovo Vomano (TE) - Via E. Mattei, 6

87050 Figline V. (CS) - Area Industriale Piano Lago

Couplings:

ALFAGOMMA HYDRAULIC SPA - Via E. Mattei, 6 - 64020 Castelnuovo Vomano (TE)

Manufacturing plants:

87050 Mangone (CS) - Area Industriale Piano Lago

Alternative manufacturing site

Alfagomma Malaysia Sdn Bhd

PLO 344, Jalan Perak 4, Pasir Gudang, Johor 81700, Malaysia

Fields of application

Hydraulic systems with hydraulic fluid having a flash point higher than 150 °C (closed cup test)

Pneumatic systems

Compressed air systems

Fresh water systems

Sanitary systems

Hydraulic lines

Fuel oil

Sea water

Remarks

The installation on board is to be carried out by qualified personnel in accordance with the manufacturer's instructions.

The flexible hoses are to be installed in order to satisfy the requirements of para. 5.9.3 of Part C, Chapter 1, Section 10 of RINA Rules.

Hoses assemblies with Carbon steel couplings are not to be used at temperatures below -10°C, unless the material is normalized.

The acceptance of the a.m. products on board ship classed with RINA is subject to the satisfactory outcome of testing as per RINA Rules.

The product (hose and fittings) is to be marked, for traceability, with the following data: nominal diameter, design conditions, Manufacturer's name or trademark, designation type reference.

Validity of this Certificate is subject to positive outcome of periodical Audit as per Rules for Testing and Certification of Marine Materials and Equipment.

This certificate cancels and replaces the previous one No. MAC324721CS/002

Genova April 17, 2023