

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	Alfagomma Hydraulic SpA
Address	Via Enrico Mattei 6, Castelnuovo Vomano, 64020, Italy
Type	Flexible Hoses
Description	Hydraulic hose for high demanding conditions & pressure Type: Alfagomma Alfabiotech 3000, Alfabiotech 4000, Alfabiotech 5000, Alfabiotech 5000P, Alfabiotech 6000. (Minetuff and Supertuff Version) Dunlop Hiflex Poweflexbio 3000, Powerflexbio 4000, Powerflexbio 5000, Poweflexbio 5000P (Plus), Powerflexbio 6000. (Minetuff and Supertuff Version)
Application	Hydraulic hose developed to withstand very demanding conditions and very high performance in pressure, pulsing and flexing.
Specified Standard	Lloyd's Register's Rules and Regulations for the Classification of Ships; ISO 18752
Ratings	Alfabiotech 3000 & Powerflexbio 3000 Diameter range 32 ÷ 76mm Design pressure 210bar Design Temperature -40 ÷ +121 °C Alfabiotech 4000 & Powerflexbio 4000 Diameter range 13 ÷ 51mm

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Design pressure 280 bar; 290 bar for -24, D 38mm
Design Temperature $-40 \div +121$ °C

Alfabiotech 5000& Powerflexbio 5000
Diameter range $16 \div 76$ mm
Design pressure 350bar
Design Temperature $-40 \div +121$ °C

Alfabiotech 5000P(Plus) & Powerflexbio 5000P (Plus)
Diameter range $19 \div 25$ mm
Design pressure 380bar
Design Temperature $-40 \div +121$ °C

Alfabiotech 6000& Powerflexbio 6000
Diameter range $6 \div 51$ mm
Design pressure 420bar, 450bar D 6mm, 445 bar D 10mm
Design Temperature $-40 \div +121$ °C

Other Conditions

The present Certificate is intended as the amendment of Type Approval Certificate 19/00019

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document No. 19/00019-02 and its supplementary Type Approval Terms and Conditions form part of this Certificate.