

Type Approval Certificate Extension

This is to certify that Certificate No. 03/20029 for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER REIFLEXA P. Reischl GmbH & Co. KG
Am Knick 5
22113 Oststeinbek
Germany

DESCRIPTION	<u>Tube</u>	<u>Reinforcement</u>	<u>Cover</u>
Yellow:	NBR-Nitrile black	Nylon text cord	CR- Chloroprene
Red :	EPDM	Nylon text cord	EPDM
HP :	EPDM	Polymer text cord	EPDM
Green :	CSM-Hypalon	Nylon text cord	CR-Chloroprene
White :	NBR-Nitrile white	Nylon text cord	CR-Chloroprene
	-----Flange material on request-----		

TYPE 1 A ; 1 S in versions: "yellow", "red", "HP", "green" and "white"

APPLICATION Marine and offshore, viz.: Fresh and sea* water lines; ballast lines in machinery spaces, duct keels and double bottom water ballast tanks; bilge lines inside duct keels only; sanitary discharge and cargo lines (NBR Nitrile black only) inside the cargo oil tanks of tankers.

*Where fitted in sea water lines in machinery compartments, guards are to be provided which will effectively enclose, but not interfere with the action of the expansion joint and which will reduce to the minimum practicable any flow of water in the event of failure of the flexible element.

The expansion joints are to be installed in well visible and accessible locations and protected against over extension and compression and against mechanical damage. The adjoining pipes are to be suitably aligned, supported, guided and anchored. The producer's instructions and recommendations are to be considered.

STANDARD Lloyd's Register Rules and Regulations for the Classification of Ships, Edit 2008

Certificate No.	03/20029 (E1)
Issue Date	21 October 2008
Expiry Date	06 March 2013
Sheet	1 of 2


 Olaf Schmidt
 Hamburg Design Support Centre
 Lloyd's Register EMEA

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RATINGS

Type 1 A : PN 16 for DN 32 to DN 150
PN 10 for DN 200 to DN 800
Type 1 S : PN 16 for DN 32 to DN 200
(Maximum temperature: + 90°C)**

**The producer's instructions and recommendations are to be considered.

"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 attached Design Appraisal Document No. HMD 10047-03, Issue No. 1, dated 21.10.2008 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

All other details remain as the previous Certificate No. 03/20029 to which this extension should be attached.

Certificate No.	03/20029 (E1)
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