

Type Approval Certificate Extension

This is to certify that Certificate No. 99/20021 (E2) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER	TPR Fiberdur GmbH & Co. KG Industriepark Emil Mayrisch 52457 Aldenhoven Germany
DESCRIPTION	Glass fibre reinforced epoxy pipe system, which is filament wound and at high temperature cured, conductive or non conductive. Joint types: bounded, laminated and flanged types, mechanical couplings and rubber seal lock joints.
TYPES	Fiberdur EP 10 bar Fiberdur EP Navicon 10 bar Fiberdur EP 16 bar Fiberdur EP Navicon 16 bar Fiberdur EP 16 bar collapse resistant Fiberdur EP Navicon 16 bar collapse resistant
APPLICATION	In ships and offshore installations classed or intended for Classification with Lloyd's Register in the following locations: Open decks, within tanks, cofferdams, void spaces, pipe tunnels, ducts and further locations, where fire endurance tests according to Appendix 2, Level 3 and flame spread test acc. to Appendix 3 of the IMO Resolution A. 753 (18) are required.
STANDARD	Lloyd's Register's Rules and Regulations for the Classification of Ships, 2010 IMO Resolution A 753 (18)

Certificate No.	99/20021 (E3)
Issue Date	01 November 2010
Expiry Date	31 July 2014
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RATINGS	Type:	Nominal diameter: [mm]	Max. pressure: [bar]
	Fiberdur		
	- EP 10 bar	25 – 800	10
	- EP Navicon 10 bar	25 – 800	10
	- EP 16 bar	25 – 800	16
	- EP Navicon 16 bar	25 – 800	16
	- EP 16 bar collapse resistant	25 – 800	16
	- EP Navicon 16 bar collapse resistant	25 – 800	16

Maximum internal pressures at ambient temperatures up to 100°C.

OTHERS CONDITIONS The installation of the piping system is to be carried out by well trained personnel in accordance with the instructions and recommendations of the manufacturer respectively in accordance with the installation requirements of the IMO Resolution as applicable. For temperatures >60°C pressure deductions have to be applied.

"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. ENS 20450-07, Issue No. 2, dated 01 November 2010 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

All other details remain as the previous Certificate No. 99/20021 (E2) to which this extension should be attached.

Certificate No. 99/20021 (E3)
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 Sheet 2 of 2

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