



# 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.

This certificate is issued to:

**PRODUCER** Bänninger Kunststoff-Produkte GmbH  
Bänningerstrasse 1  
35447 Reiskirchen  
Germany

**TYPES** PP-R, PP-RCT, PP-RCT/GF PP-RCT/PP-RCT,  
PP-RCT/AL/PP-R piping systems and fittings

**APPLICATION** Non-essential Class III piping systems, hot and cold domestic water on board ships and offshore installations in, where fire endurance is not a requirement, according to the Rules, Part 5, Chapter 12, Table 12.5.3.

**RATINGS** Sizes: up to 355 mm diameter  
Max. Working Temperature: up to 95°C,

<u>Pressure Ratings:</u>		[mm]
PP-R	SDR 6	d 16 – 63
PP-RCT	SDR 7.4	d 20 – 125
PP-RCT	SDR 9 / SDR 11	d 20 – 355
PP-RCT / AL / PP-R	SDR 7.4 / SDR 9	d 20 – 125
PP-RCT/GF /PP-RCT	SDR 7.4/SDR9/SDR 11/SDR17	d 20 - 250

**STANDARDS** DIN 8077: 2008-09, DIN 8078: 2008-09, ISO 15874-1, 2, 3, 5: 2010-04;  
LR Rules and Regulations for the Classification of Ships, 2016.

**Certificate No.** 11 / 20023 (E2)

**Issue Date** 22 February 2017

**Expiry Date** 25 May 2021

**Sheet** 1 of 2

  
**Torsten Schröder**  
 Hamburg Technical Support Office  
**Lloyd's Register EMEA**

LR031.1.2016.06

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**OTHER CONDITIONS** Pipes and fittings are to be selected and installed in accordance with the manufacturer's recommendations.

**RESTRICTIONS** The use of plastic pipes may be restricted by statutory requirements of the National Authority of the country in which the ship is to be registered.

**PLACE OF PRODUCER** Bänninger Kunststoff-Produkte GmbH  
Athenslebener Weg 21  
39418 Stassfurt  
Germany

*The Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.*

*If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to it being supplied to vessels to which the amended standards apply.*

*The Design Appraisal Document No. ENS 26699-11, Issue No. 2, dated 22.02.2017 and its supplementary Type Approval Terms and Conditions form part of this Certificate.*

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