



中国船级社
CHINA CLASSIFICATION SOCIETY
工厂认可证书
CERTIFICATE OF WORKS APPROVAL

证书编号/Certificate No.
HB23PWA00001

兹证明本证书所述制造厂具备按照下列标准的要求生产本证书所列产品的能力和条件。

This is to certify that the manufacturer stated in the certificate meets the requirements of the standards listed below and is available with the ability and conditions to produce the products described in the certificate.

制造厂/Manufacturer

aquatherm GmbH

地址/Address

Biggen 5, 57439 Attendorn, Germany

产品名称/Product

塑料管

Plastic pipes

船用塑料管及管件

Material Plastic Tubes and Fittings

认可标准/Approval Standard

1. 中国船级社《钢质海船入级规范》(2022)及其变更通告第3篇第2章

Chapter 2, Part Three of China Classification Society Rules for Classification of Sea-Going Steel Ships 2022 and its Change Notices

2. IMO第A. 753(18)号决议《船上使用塑料管道指南》及其修正案

IMO Res.A.753(18) Guideline for the Application of Plastic Pipes on Ships and its Amendments

3. 中国船级社《材料与焊接规范》(2022)及其变更通告第2篇第4章

Chapter 4, Part Two of China Classification Society Rules For Materials and Welding 2022 and its Change Notices

用于/Intended for

船舶与海上设施/Ships and Offshore Installations

证书有效期至/This Certificate is valid until 2027年02月07日/ Feb. 07,2027

发证机构 中国船级社深圳分社
Issued by CCS Shenzhen Branch

签发日期 2023年03月10日
Date Mar. 10,2023

本证书根据中国船级社规范和相关规定签发。所有证书页为一个整体，必须同时使用。纸质证书每页均须由本社盖章方为有效，电子证书含数字签名方为有效，本证书复印件无效。任何单位和个人均不应摘录或节选本证书的部分内容。有关方对所持证书的真实性有疑问时，可以向本社检验机构咨询。This Certificate is issued pursuant to the Rules of the Society and related regulation. All pages of the certificate are taken as a whole and are used simultaneously. No paper certificate page is valid without bearing the stamp of the Society, no electronic certificates is valid without the digital signature, and no copied form of the certificate is regarded as valid. Any part of the certificate is not to be extracted or abridged by any unit or individual in any form. Related parties who are doubted about the authenticity of the certificate may inquire of the Society or its offices.



Form No: W01.

联系方式/Contact Us, 见本社官方网站/See official web site of the Society (<http://www.ccs.org.cn>)

UTN:P023-24948675

产品明细/Product Description**船用塑料管及管件/Material Plastic Tubes and Fittings (M0001)**

名称/Name	属性(值)/Value	单位/Unit
规格/Specification	Refer to additional page	
材料/Material	Polypropylene (PPR)	
公称压力/Nominal Pressure	Refer to additional page	
最高工作温度/Maximum Operating Temperature	+10° C to 70° C	
耐火等级/Fire Class	Non fire endurance	
低播焰性试验/Low Flame-Spread Characteristics	Approved products tested in accordance with ASTM D635, accepted as an alternative to IMO A.653(16)	
导电性能/Electrical Conductivity	Non electrically conductive	

批准的图纸/Approved Drawings

图纸批准号/ Drawings Approval No. : HB19PWA00002

产品认可试验报告/ Approval Test Report

试验报告编号/ Test Report No. : 03/13
 试验报告日期/ Test Report Date : 2015-06-02
 试验单位/ Laboratory: Aquatherm GmbH
 试验单位地址/ Test Address: Biggen 5, D-57439 Attendorm, Germany

试验报告编号/ Test Report No. : HB15W00001
 试验报告日期/ Test Report Date : 2015-04-15
 试验单位/ Laboratory: Aquatherm GmbH
 试验单位地址/ Test Address: Biggen 5, D-57439 Attendorm, Germany

试验报告编号/ Test Report No. : HB15W00001
 试验报告日期/ Test Report Date : 2015-07-22
 试验单位/ Laboratory: Aquatherm GmbH
 试验单位地址/ Test Address: Biggen 5, D-57439 Attendorm, Germany

试验报告编号/ Test Report No. : 97DG706T0
 试验报告日期/ Test Report Date : 1997-01-17
 试验单位/ Laboratory: RINA Lab.
 试验单位地址/ Test Address: Via Corsica, 12-16128 Genova, Italy

试验报告编号/ Test Report No. : 2005CS01347/1
 试验报告日期/ Test Report Date : 2005-03-02
 试验单位/ Laboratory: RINA S.p.A.
 试验单位地址/ Test Address: 16126 Genova, Italy

试验报告编号/ Test Report No. : HB18W00004
 试验报告日期/ Test Report Date : 2008-08-13
 试验单位/ Laboratory: Aquatherm GmbH
 试验单位地址/ Test Address: Biggen 5, D-57439 Attendorm, Germany

认可后的产品检验方式/Method of Product Inspection after Approval

按规范只认可不进行产品检验的产品/The product approved only in term of the rules:
 认可后的产品检验由制造厂按本社批准的产品检验计划进行检验, 经检验合格后由制造厂签发合格证明, 并连同该产品的本社认可证书复印件一并交付用户, 制造厂对产品符合公约、法规、本社规范和本社认可的标准规定负责。
 After approval, product inspection should be carried out by the Manufacturer in accordance with the product inspection scheme approved by the Society. Upon satisfactory inspection, and the Quality Certificate issued by the Manufacturer should be provided to the purchaser together with the copy of the approval certificate issued by the Society. The manufacturer should take responsibility for the product being in compliance with the convention, statutory regulation, the Society rules and the

认可后的产品检验方式/Method of Product Inspection after Approval

standard accepted by the Society.

认可保持条件/Maintenance Requirements of Approval

1. 工厂认可后, 如果图纸、技术文件、工艺规程有较大改变, 应征得本社同意。若改变涉及或影响到产品的设计、主要制造材料、关键工艺或产品的特性、特征, 则与特性有关的图纸和技术文件应经过本社审批, 并在检验机构认为必要时, 经本社检验人员到厂进行检查和见证有关试验, 其结果应能证实仍符合认可条件。

After works approval, if there are any major changes to the drawings, technical documents, specifications, prior consent should be obtained from the survey office of the Society. If the changes involve or affect product design, major construction materials, key workmanship or product characteristics and properties, drawings and technical documents related to properties are to be examined and approved by the Society and, where deemed necessary by the survey office, the surveyor to the Society will go to the manufacturer to inspect or witness relevant tests and the results of the tests should be able to demonstrate compliance with the approval conditions

2. 工厂的质量管理体系应保持有效运行, 并且与认可时一致。如果质量管理体系发生改变, 应经原体系认证机构审核并报本社批准。

The quality management system of the factory shall be ensure effective operation, and shall be the same as the situation of approval. If there are any changes to the quality management system, auditing of the original certification organization for quality management system and the society's approval shall be obtained.

3. 工厂认可证书获得者应接受本社每年一次的定期审核, 定期审核日为认可证书期满之日对应的每一周年日, 检查工作应在定期审核日的前后三个月内进行。Those who have obtained the certificate of works approval shall receive periodical audit done by the Society on an annual basis. The date of periodical audit shall be each anniversary date which corresponds to the date of expiry of the relevant certificate and the periodical audit shall be done within a time span of three months before and after the annual surveillance date.

4. 在认可证书有效期内, 本社检验人员可在未经事先通知的情况下对工厂的产品制造过程进行审核, 以验证产品的生产是否符合业经本社批准的图纸和文件。工厂应予以配合。

Within the validity of the approval certificate, the surveyor to the Society may pay unannounced audit to the manufacturing process of the product in order to confirm whether it is in compliance with the drawings and documents approved by the Society. The factory should provide an active cooperation and necessary for the surveyor.

5. 认可证书有效期内, 如果出现可能导致本社暂停或撤销认可的情况, 工厂应及时采取有效的纠正措施。

Within the validity of the approval certificate, if cases occur that may cause the Society to suspend or withdraw the certificate, the manufacturer should take corrective actions in a prompt and effective manner.

备注/Remarks

Approved products to be used in Class III piping system only and comply with applicable rules.

本社已审核了产品厂无石棉声明, 但本社的审核不免除产品厂按照合同关系向订货方保证产品无石棉的责任。

The declaration of asbestos-free submitted by manufacturer has been reviewed by the Society. However, liability of the manufacturer to guarantee the products are asbestos-free to purchaser under contract will not be exempted.

本证书由原工厂认可证书 (No. HB19PWA00002) 换新并替代原证书。

This certificate is renewed from and supersedes the previous Works Approval Certificate No. HB19PWA00002.

中国船级社汉堡分社

CCS Hamburg Branch

注: 本证书含有附页, 共4页

Note: The certificate is attached with additional 4 page(s)

Product Particulars			
Type	Outer Diameter(mm)	Thickness(mm)	DN
Aquatherm Green pipe SDR11 S Old name: Fusiotherm-pipes SDR 11	20	1.9	15
	25	2.3	20
	32	2.9	25
	40	3.7	32
	50	4.6	40
	63	5.8	50
	75	6.8	65
	90	8.2	80
	110	10.0	80
	125	11.4	100
	160	14.6	125
	200	1&2	150
	250	22.7	200
	315	2&6	250
	355	32.2	-
	400	36.3	-
450	40.9	-	
Aquatherm green pipe SDR7.4 S (PN16*) Old name: Fusiotherm-pipes SDR 7.4 (PN16*)	16	2.2	12
	20	2.8	15
	25	3.5	20
	32	4.4	25
	40	5.5	32
	50	6.9	40
	63	&6	-
	75	10.3	50
	90	12.3	65
110	15.1	80	
Aquatherm green pipe SDR6 S(PN20*) Old name: Fusiotherm-pipes SDR 6 (PN20*)	16	2.7	10
	20	3.4	12
	25	4.2	15
	32	5.4	20
	40	6.7	25
	50	8.3	32
	63	10.5	40
	75	12.5	50
	90	15.0	60
	110	1&3	65

Remark: "*" Maximum allowable working pressure at 20 °C. For working temperatures higher than 20C, the maximum working pressure must be reduced as per the manufacturer's instructions.

Product Particulars			
Type	Outer Diameter(mm)	Thickness(mm)	DN
Aquatherm green pipe SDR7.4 MF	20	2.8	15
	25	3.5	20
	32	4.4	25
	40	5.5	32
	50	6.9	40
	63	&6	50
	75	10.3	50
	90	12.3	65
	110	15.1	80
	125	17.1	-
	160	21.9	125
	220	27.4	150
	250	34.2	175
	315	42.6	-
	355	4&0	-
Aquatherm blue pipe SDR11 S	20	1.9	15
	25	2.3	20
	32	2.9	25
	40	3.7	32
	50	4.6	40
	63	5.8	50
	75	6.8	65
	90	8.2	80
	110	10	80
	125	11.4	100
	160	14.6	125

Remark: "" Maximum allowable working pressure at 20 °C. For working temperatures higher than 20C, the maximum working pressure must be reduced as per the manufacturer's instructions.

Product Particulars

Type	Outer Diameter(mm)	Thickness(mm)	DN
Aquatherm blue pipe SDR7.4/ SDR11 MF-RP	25	3.5	20
	32	2.9	25
Old name: Aquatherm blue pipe SDR7.4/ SDR11 MF	40	3.7	32
	50	4.6	40
	63	5.8	50
	75	6.8	65
	90	8.2	80
	110	10	80
	125	11.4	100
	160	14.6	125
	200	1&2	150
	250	22.7	200
	315	2&6	250
	355	32.2	300
	400	36.3	-
	450	40.9	-
Aquatherm blue pipe SDR17.6 MF-RP	160	9.1	-
	200	11.4	-
Old name: Aquatherm blue pipe SDR17.6 MF	250	14.2	-
	315	17.9	-
	355	20.1	-
	400	22.7	-
	450	25.5	-
	500	2&4	-
	560	31.7	-
	630	35.7	-

Remark: "*" Maximum allowable working pressure at 20 °C. For working temperatures higher than 20C, the maximum working pressure must be reduced as per the manufacturer's instructions.

Product Particulars			
Type	Outer Diameter(mm)	Thickness(mm)	DN
Aquatherm green pipe SDR9 MF-RP	32	3.6	25
	40	4.5	32
	50	5.6	40
	63	7.1	50
	75	8.4	-
	90	10.1	65
	110	12.3	80
	125	14	100
	160	17.9	125
	200	22.4	150
	250	27.9	200
	315	35.2	250
	355	39.7	-

Remark: "" Maximum allowable working pressure at 20 °C. For working temperatures higher than 20C, the maximum working pressure must be reduced as per the manufacturer's instructions.