



FEFTC

试验报告

TEST REPORT

远东防火试验中心

FAR EAST FIRE TESTING CENTRE

编号:

No. FT23478



中国认可
国际互认
检测
TESTING
CNAS L1412



FEFTC

远东防火试验中心

FAR EAST FIRE TESTING CENTRE

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试验报告 TEST REPORT

试样名称: GKT-9638 型陶瓷棉 (96kg/m³)

NAME OF SPECIMEN: GKT-9638 Ceramic Wool (96kg/m³)

试验名称: 船用结构材料不燃性试验

TYPE OF TEST: Non-combustibility Test for Marine Structural Material

委托方: 天津国康泰节能科技有限公司

CLIENT: Tianjin Guokangtai Energy Conservation Technology Co.,Ltd

委托方地址: 天津市滨海新区中新生态城动漫中路 482 号创智大厦 1-720


ADDRESS: 1-720,Chuangzhi Building,No.482 Animation Middle Road,Zhongxin Ecological City,Binhai New Area,Tianjin

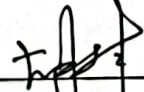
本试验报告所述的试样在远东防火试验中心进行了试验,试验结果表明: 试样符合国际海事组织《2010 年国际耐火试验程序应用规则》(以下简称“2010 FTP 规则”)附件 1 第 1 部分有关船用结构材料不燃性试验要求。

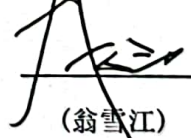
A non-combustibility test on the specimens as described in this report has been conducted at Far East Fire Testing Center and the test results shows that the specimens are in compliance with the relative non-combustibility requirements of marine structural materials in IMO *THE INTERNATIONAL CODE FOR APPLICATION OF FIRE TEST PROCEDURES, 2010* (hereinafter referred to as 2010 FTP Code), Annex 1, Part 1.

试验日期: 2023-12-5
Date of Test:

报告日期: 2023-12-11
Date of Report:

试验主持: 
Charge of: (何桂生)

审核: 
Checked by: (胡津津)

批准: 
Approved by: (翁雪江)

远东防火试验中心
Far East Fire Testing Centre



试验程序 Test Procedure

试验按照 IMO《2010 FTP 规则》附件 1 第 1 部分不燃性试验进行, 测试方法参考 ISO 1182《建筑和运输产品对火反应试验-不燃性试验》。

The non-combustibility test was carried out in accordance with the IMO 2010 FTP Code, Annex 1, Part 1, and the test method referred to ISO 1182, Reaction to Fire Tests for Building and Transport Products - Non-Combustibility Test.

样品描述 Description of sample**1 产品信息 (委托方提供) Information of product (provided by the client)**

尺寸 (mm) Dimension (mm)	300×300×38
颜色 Color	白色 white
名义密度(kg/m³) Normal density (kg/m³)	96
名义含水率% Nominal moisture content %	0
名义有机物含量% Nominal organic content %	0
组成成分 Composition	三氧化二铝、二氧化硅 Aluminum oxide, silicon dioxide

2 试样信息 Information of specimens

尺寸 (mm) Dimension (mm)	直径Φ:45; 高 H:50 Diameter Φ:45; Height H:50
颜色 Color	白色 white
数量 (个) Number (piece)	5
结构组成 Structural composition	同上述产品信息 Same as the above-mentioned product information
材料类型 Material type	匀质材料 Homogeneous material
制备 Preparation	母材截取后叠加 Base metal interception and overlaying

3 收样日期 Date of delivery

样品由委托方于 2023 年 10 月 20 日送达本中心。

The sample was delivered to the Center by the client on 2023-10-20.

4 封样标志 Seal mark

ABS 船级社和 RINA 船级社对试样作了封样。

The specimen was sealed by ABS and RINA.

5 预处理 Pretreatment

预处理 Pretreatment	温度 (°C) Temperature (°C)	持续时间 (h) Duration (h)	处理结果 Treatment result
	60±5	24	至恒重状态 To a constant weight state

试验见证与出席人员 Test witness and attendees

ABS 船级社和 RINA 船级社已获悉要进行本报告所详述的试验，并认为没有必要派代表见证试验。

ABS and RINA was notified of the intention to conduct the test detailed in this report and did not consider it necessary to send a representative to witness it.

试验结果 Test results

a) 试样实测值 Measured value of the specimen

密度(kg/m³) Density (kg/m³)	95.7
含水率(%) Moisture content (%)	0.5
有机物含量(%) Organic content (%)	0.3

b) 各测温点的最高温度和最终平衡温度

The maximum temperature and final equilibrium temperature of each measuring point

试样 Specimen 编号 №	最高温度 (°C) Maximum temperature (°C)		最终平衡温度 (°C) Final equilibrium temperature (°C)		温升 (°C) Temperature rise (°C)	
	炉温 $T_{m(f)}$	表温 $T_{m(s)}$	炉温 $T_{f(f)}$	表温 $T_{f(s)}$	炉温 $T_{r(f)}$	表温 $T_{r(s)}$
1	800.4	795.5	800.0	795.1	0.4	0.4
2	805.5	817.7	804.3	817.1	1.2	0.6
3	798.8	814.7	797.9	814.5	0.9	0.2
4	803.7	798.3	801.1	796.7	2.6	1.6
5	806.4	797.0	805.1	796.4	1.3	0.6
平均 T_{aver}	—	—	—	—	1.3	0.7

c) 试验过程中火焰时间、试验前后试样的质量及试验观察

Continuous flames time in the process of test, masses before and after test and observation during the test

试样编号 №	火焰持续时间 Continuous flames time (s)	试验前试样质量 Mass of specimen before test (g)	试验后试样质量 Mass of specimen after test (g)	质量损失率 Mass loss rate (%)
1	0	7.66	7.55	1.4
2	0	8.52	8.41	1.3
3	0	8.48	8.37	1.3
4	0	7.48	7.36	1.6
5	0	8.15	8.03	1.5
平均 Average	0.0	—	—	1.4
观察 Observation	试样无明显变化。 No obvious changes took place for the specimen.			

d) 试验结果数据及标准允许值 Test result data and standard allowable value

内 容 Content	结 果 Result	实测值 Measured value	允许值 Allowable value
炉内平均温升 (°C) 5 tests mean furnace temp. rise (°C)		1.3	≤30
试样表面平均温升 (°C) 5 tests mean surface temp. rise (°C)		0.7	≤30
连续火焰平均时间 (s) 5 tests mean continuous flames time (s)		0.0	≤10
试样质量平均损失 (%) 5 tests mean mass loss (%)		1.4	≤50

e) 不燃性结论：合格

Conclusion of non-combustibility test: qualified

分级 Classification

本报告所述的试样可按该 IMO《2010 FTP 规则》附件 1 第 1 部分视为船用结构不燃性材料。

The specimens mentioned in this report may be regarded as marine non-combustible structural

material complying with 2010 FTP Code Annex 1, Part 1.

只有向有关主管机关提出申请，才能获得此种材料的认可。

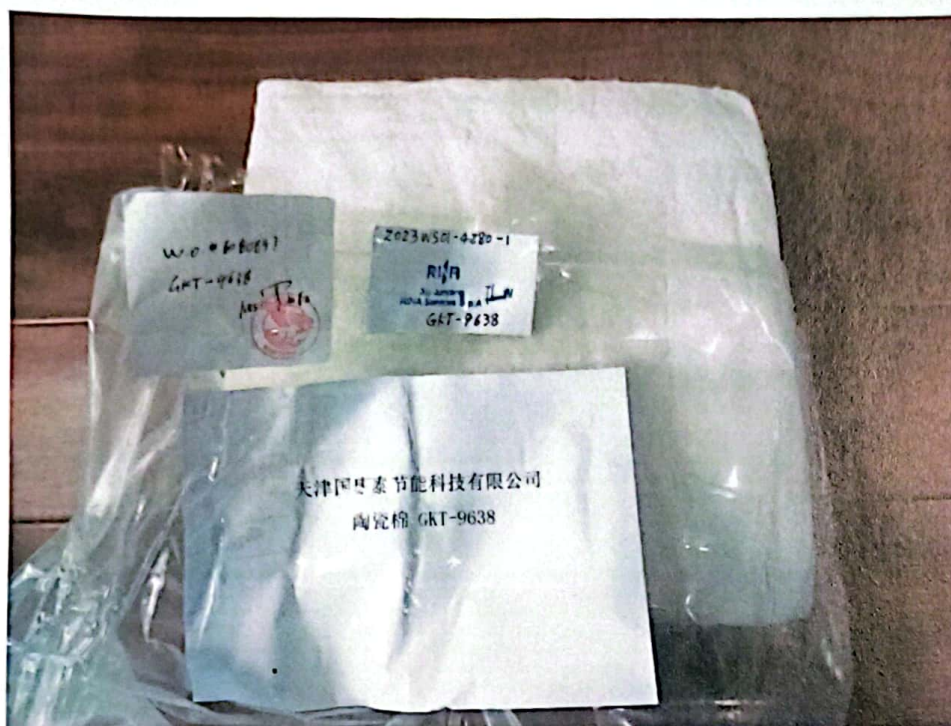
Approval of the material may be obtained only on application to the appropriate Administration.

声明 Statement

试验结果与产品试样在特定试验条件下的性能相关；试验结果不能用作评定该产品使用时的潜在失火危险的唯一衡准。

The test results relate only to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

照片 Photos



No.1 样品封样
Sealing of samples



No.2 样品母材
Parent material of samples



No.3 试验前的五个试样
Five specimens prior to the test



No.4 试验后的五个试样
Five specimens after the test