

NIPPON KAIJI KYOKAI

Certificate

Certificate No. TA231808E(R)

OF

APPROVAL

Item

Non-combustible material

Product name

Glasron Wool

Specifications

See Annex.

Applicant

Asahi Fiber Glass Co., Ltd.

3-6-3, Kandakaji-cho, Chiyoda-ku, Tokyo, Japan

Manufacturer

See Annex.

Testing standard

2010 FTP Code Annex 1 / Part 1

Test reports

See Annex.

THIS IS TO CERTIFY that the above type of products has been approved by Nippon Kaiji Kyokai with type approval No. 03FPA79CM, and that the products of the above type will be accepted for use onboard ships classed with the Society as complying with the relevant requirements of the Society's Rules for the Survey and Construction of Steel Ships and those of the International Convention for the Safety of Life at Sea, 1974, as amended, conditional upon the manufacturers having a quality control system audited by a competent authority to ensure continuous compliance with the type approval conditions.

This certificate is valid from 25 December 2023 until 24 December 2028.

Issued at Tokyo on 25 December 2023.

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NIPPON KAIJI KYOKA

Y. Takao

General Manager

Material and Equipment Department

Annex to the Certificate No. TA231808E(R)



1. Manufacturer

Asahi Fiber Glass Co., Ltd. Shonan Plant 6-11-1, Ichinomiya, Samukawa-machi, Kouza-gun, Kanagawa, Japan

2. Test reports

Test laboratory

Research Institute of Marine Engineering

1-5-12, Fujimi-cho, Higashimurayama-city, Tokyo, Japan

Product types	Report numbers	Dates of issue
Glasron Wool	22-269(E)-Rev.1	31 October 2022
	17-201(E)-Rev.1	17 December 2018
Glasron Wool with Glass Cloth	18-386(E)	17 December 2018
	17-202(E)-Rev.1	17 December 2018
Glasron Wool with Aluminum Foil Reinforced Glass Cloth	18-387(E)	17 December 2018
	17-329(E)-Rev.1	17 December 2018
Glasron Wool for pipe insulation	22-270(E)	31 October 2022
	23-006(E)	4 April 2023

3. Specifications

Constructions:

· Glasron Wool

Homogeneous material

· Glasron Wool with Glass Cloth

Surface material

: Glass Cloth

Weight per unit area of glass cloth

: 210 g/m²

Adhesive

: Synthetic rubber solvent adhesive

Weight per unit area of adhesive

 $: 45 \text{ g/m}^2$

Minimum thickness of Glasron Wool : 50 mm

· Glasron Wool with Aluminum Foil Reinforced Glass Cloth

Surface material

: Aluminum Foil Reinforced Glass Cloth

Aluminum foil thickness

: 20 µm

Weight per unit area of Aluminum

Foil Reinforced Glass Cloth

:85 g/m²

Adhesive

: Synthetic rubber hot melt adhesive

Weight per unit area of adhesive

 $: 45 \text{ g/m}^2$

Minimum thickness of Glasron Wool : 50 mm

· Glasron Wool for pipe insulation

Homogeneous material

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Density and organic contents:

Product types	Density of glass wool (kg/m³)	Maximum organic contents (%)
Glasron Wool	16	9.63
	32	9.12
Glasron Wool with Glass Cloth	16	5.32
	32	7.8
Glasron Wool with Aluminum Foil Reinforced Glass Cloth	16	5.81
	32	8.68
Glasron Wool for pipe insulation	48 ~ 56	10.2 (48 kg/ m³)
		8.62 (56 kg/ m³)