



Eurosul Fornecedor de Navios Ltda

Rua Jaguariaiva, nº 596, Sala 01 – Pinhais/PR

Alphaville Graciosa – Cep: 83.327-076

Email: vendas3@eurosul.com

CNPJ: 03.178.524/0001-65 - Insc. Est.: 90186639-26



BOLETIM TÉCNICO



| | | | |
|--|---|---------------------------|--|
| Descrição: | ROUPA DE BOMBEIRO – (CALÇA – BLUSÃO) | | |
| Código do Produto: | 90524 | Importado por: | Eurosul |
| Modelo: | ZFMH-FZ | Fabricante: | FangZhan |
| Aprovação: | CE 469:2005 | Certificado Conformidade: | (MODULO B) N.MED037121WS/006 (MODULO D) N.MED004221WS/006 |
| PRODUTO IMPORTADO NÃO POSSUI CERTIFICADO C.A. PELO MINISTÉRIO DO TRABALHO | | Classificação Fiscal: | 6203.2300 |
| Especificação: | | | |
| Vestuário (Roupa) de proteção contra incêndio para bombeiros (Calça/Blusão) – modelo: ZFMH-FZ de acordo com Norma Européia EN469:2005 destina-se a bombeiros e empresas sociais a tempo inteiro ou a tempo parcial, para combate a incêndio, em caso de emergência. Tamanho: L (Grande) COR: Azul Marinho PRODUTO FABRICADO DENTRO DAS NORMAS INTERNACIONAIS EUROPEIA C.E. 469:2005, SOLAS MED COM CERTIFICADO DE APROVAÇÃO EXPEDIDO PELO SEU PAÍS DE ORIGEM CLASSIFICADORA RINA CERTIFICADO DE EXAMINAÇÃO (MODULO B) N. MED037121WS/006 E (MODULO D) N. MED004221WS/006 | | | |



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Especificações dos produtos:

As roupas de proteção contra incêndio de bombeiros de acordo com a EN469: 2005 são projetadas para bombeiros e empresas sociais bombeiros em tempo integral ou parcial, incêndio diário, emergência (mas sem produtos químicos perigosos, gás, vírus, radiação nuclear e outros ambientes especiais vestindo), quando o relevo se desgasta.

1. Estrutura do Produto:

Os bombeiros usam roupas de proteção contra incêndio usando uma estrutura internacional comum de quatro (múltiplas) camadas

- ◆ camada de superfície (tecido de fibra de aramida retardador de chama permanente resistente a altas temperaturas)
- ◆ camada impermeável respirável (complexo de membrana impermeável respirável de tecido spunlace de aramida e alto desempenho)
- ◆ camada isolante (spunlace de isolamento de aramida)
- ◆ camada de conforto (Kevlar mistura materiais retardantes de chama e musselina de conforto de alto desempenho)

O principal desempenho técnico:

2. Especificações Técnicas

- ◆ propriedades retardantes de chama do tecido: comprimento do dano ≤ 90 mm, tempo de queima contínuo ≤ 2 s
- ◆ resistência do tecido: resistência ao rasgo ≥ 100 N, resistência à ruptura ≥ 850 N
- ◆ estabilidade térmica: Após 260 ± 5 °C teste de estabilidade térmica, o encolhimento de urdidura e trama $\leq 2\%$
- ◆ camada impermeável respirável de pressão hidrostática lavada após 25 vezes maior que 50KPa, propriedades permeáveis ao vapor de água ≥ 5000 g / m² • 24h, de acordo com o óleo \geq grau 3
- ◆ estrutura de quatro camadas de TPP > 32cal / cm²9. Horizontes visíveis superiores a 120°.



EC TYPE EXAMINATION (MODULE B)
CERTIFICATE No. MED037121WS/006

This is to certify that RINA Services S.p.A. (Notified Body No. 0474) did undertake the relevant type approval procedures for the equipment identified below, which was found to be in compliance with the Fire Protection requirements of Marine Equipment Directive (MED) 2014/90/EU, including the requirements and testing standards of Regulation (EU) 2020/1170.

MED Item N°

MED/3.3a

Description

Fire-fighter's outfit: protective clothing (close proximity clothing): (a) Protective non reflective clothing for fire fighting ZFMH-FZ

Type

Applicant

SHANGHAI FANGZHAN FIRE TECHNOLOGY CO., LTD.

BUILDING 41, NO.1-42, LANE 83
NORTH HONGXIANG ROAD, WANXIANG TOWN
PUDONG NEW AREA, SHANGHAI, CHINA

Testing standards

Reference standards

EN 469 (2005) including A1(2006) and AC(2006)

SOLAS 74 Reg.II-2/10, IMO Res.MSC.36(63)-(1994 HSC Code) 7, IMO Res.MSC.97(73)-(2000 HSC Code) 7, IMO Res.MSC.98(73)-(FSS Code) 3.

Issued in **SHANGHAI** on
February 3, 2021

This Certificate is valid until
February 2, 2026

This Certificate consists of this sheet plus an attachment



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RINA Services S.p.A.





ATTACHMENT TO
CERTIFICATE No. MED037121WS/006
Page 1 of 3

Manufacturer

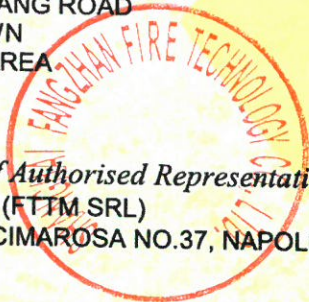
SHANGHAI FANGZHAN FIRE TECHNOLOGY CO., LTD.

Place of Manufacturer

BUILDING.41
NO.1-42
LANE 83
NORTH HONGXIANG ROAD
WANXIANG TOWN
PUDONG NEW AREA
SHANGHAI
CHINA

Name & place of Authorised Representative

ANTONIO TRANI (FTTM SRL)
VIA DOMENICO CIMAROSA NO.37, NAPOLI, ITALY
ITALY



Product Description

Fire-fighter's outfit (Protective Clothing, Type: ZFMH-FZ), comprising jacket and trousers with reflective bands to be use only against radiant heat as described below:

High neck with Velcro closure; Front and Side opening with Zipper covered by a flap closed by Velcro; Inner knitted cuffs; Pockets & Trouser legs closed by flaps and Velcro; And reflective band of total width 50 mm, reflecting silver material 20 mm wide in the middle, bordered symmetrically with yellow bands.

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Material Main Characteristics

Fabric Assembly:

Four Layer Fire-retardant Fabric with detail as below:

- Outer Shell: YM6019 (195±9.75 g/m²), Aramid Flame Retardant Fabric (Grid Reinforced Cloth);
- Waterproof Breathable Layer: SPF70 (108±5.4 g/m²), Flame Retardant PTFE Waterproof Breathable Layer;
- Insulation Layer: F70 (72±3.6 g/m²), Aramid Spunlaced Insulation;
- Comfort Layer: YM6026 (120±6 g/m²), Aramid Fiber and Flame Retardant Fabric.

Cuffs: Knitted Fabric, manufactured by Shanghai Mingqian Industrial Co., Ltd

Zipper: Plastic and Metal Flame Retardant (Fireproof) Zipper, manufactured by Shenzhen Huofeng Zipper Co., Ltd

Velcro: Nylon FR, manufactured by Shanghai Qiuming Textile Co., Ltd

Reflective band: Yellow/Silver/Yellow, manufactured by 3M Co., Ltd

Levels of Performance:

Heat Transfer- Flame: LEVEL Xf2;

Heat Transfer- Radiation: LEVEL Xr2;

Resistance to Water Penetration (Moisture Barrier): LEVEL Y2;

Resistance to Water Penetration (Seamed Specimen): LEVEL Y2;

Water Vapour Resistance: LEVEL Z1

RINA Services S.p.A.
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ATTACHMENT TO
CERTIFICATE No. MED037121WS/006

Page 2 of 3

Continued:

Reference Documents

- Technical Drawing, issued by Shanghai Fangzhan Fire Technology Co., Ltd and approved by RINA with No. SHFP-9161;
- Technical Specification, issued by Shanghai Fangzhan Fire Technology Co., Ltd and approved by RINA with No. SHFP-9162;
- Bill of Material, issued by Shanghai Fangzhan Fire Technology Co., Ltd and approved by RINA with No. SHFP-9246.

Tests Carried Out

- Test Report (Ref No. 2015154, issued by China Classification Society Wuhan Rules and Research Institute Testing Center of Marine Life-saving Appliances and filed by RINA with No. SHFP-9164;
- Test Report [Plastic Flame Retardant (Fireproof) Zipper] (Ref No. AJHG1411003000FB), issued by SGS-CSTC Co., Ltd. Anji Branch and filed by RINA with No.: SHFP-9214;
- Test Report [Metal Flame Retardant (Fireproof) Zipper] (Ref No. AJHG1503001670FB & AJHG1503001669FB), issued by SGS-CSTC Co., Ltd. Anji Branch and filed by RINA with No. SHFP-9215 & SHFP-9216;
- Test Report [Metal Flame Retardant (Fireproof) Zipper] issued by China National Fire Equipment Quality Supervision Centre and filed by RINA with No. SHFP-9217;
- Test Report (Nylon Adhesive) (Ref No. SHIN1512057717PS), issued by SGS-CSTC Co., Ltd. Anji Branch and filed by RINA with No.: SHFP-9247.

Remarks

The product or packing is to be marked with name of manufacturer and type designation according to EN 469, Para.7 and the MED Mark of Conformity.

Additional information as specified in EN 340 shall be supplied by the manufacturer in the official language(s) of the state of destination.

The protective suit is not designed to be used for entering into fire.

Storage, handling, cleaning, use and restrictions for use to be in accordance with the manufacturer's instructions.

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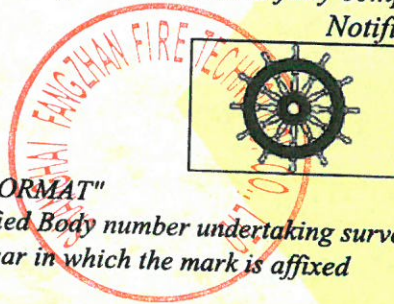
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The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production control phase module (D, E or F) of Annex II of the Directive is fully complied with a written inspection agreement with a

Notified Body



XXXX/YYYY

"WHEELMARK FORMAT"

XXXX Notified Body number undertaking surveillance module
YYYY The year in which the mark is affixed

General conditions for the approval

- a) The initial conditions verified by RINA at the time of the approval are to be maintained
- b) Any changes to the initial conditions are to be promptly communicated to RINA, which reserves the right to repeat the relevant assessment
- c) This certificate will no be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with RINA
- d) RINA personnel are to be allowed to witness during the performances of activities, upon their request
- e) The activities are to be carried out in compliance with the RINA Rules and/or other applicable Rules
- f) Should the specified regulations or standards be amended during the validity of this certificate, the product is to be reaproved prior to it being placed on board vessels to which the amended regulations or standards apply.

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Qiang Sun





**PRODUCTION QUALITY ASSURANCE (MODULE D)
CERTIFICATE No. MED004221WS/006**

This is to certify that RINA Services S.p.A. did undertake the relevant quality assessment procedures for the equipment of the manufacturer identified below, which was found to be in compliance with the Fire Protection requirements of Marine Equipment Directive (MED) 2014/90/EU, including the requirements and testing standards of (EU) 2020/1170 and according to the type described in the EC Type Examination Certificate (Module B) below indicated.

MED Item N°
Description
Type
Applicant

MED/3.3a

**Fire-fighter's outfit: protective clothing (close proximity clothing): (a)
Protective non reflective clothing for fire fighting
ZFMH-FZ**

SHANGHAI FANGZHAN FIRE TECHNOLOGY CO., LTD.

BUILDING.41
NO.1-42
LANE 83
NORTH HONGXIANG ROAD
WANXIANG TOWN
PUDONG NEW AREA
SHANGHAI
CHINA

Module B certificate

Number
Date
Notified Body

**MED037121WS/006
02/03/2021
RINA (No. 0474)**

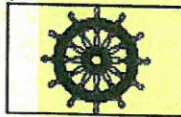
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Issued in SHANGHAI on
February 8, 2021

This Certificate is valid until
September 24, 2023

This Certificate consists of this sheet plus an attachment

This certificate authorises the Manufacturer or his authorised representative established within the Community in conjunction with the EC TYPE EXAMINATION (MODULE B) CERTIFICATE to affix the following symbol on the equipment above identified.



0474/YYYY

YYYY The year in which the mark is affixed





ATTACHMENT TO
CERTIFICATE No. MED004221WS/006

Equipment:
ZFMH-FZ

Manufacturer
SHANGHAI FANGZHAN FIRE TECHNOLOGY CO., LTD.

Place of Manufacturer
BUILDING.41
NO.1-42
LANE 83
NORTH HONGXIANG ROAD
WANXIANG TOWN
PUDONG NEW AREA
SHANGHAI
CHINA



Name & place of Authorised Representative
ANTONIO TRANI (FTTM SRL)
VIA DOMENICO CIMAROSA NO.37, NAPOLI
ITALY

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Technical documentation

| INTERMEDIATE SCHEDULED AND UNSCHEDULED AUDITS | | | |
|--|----------------|----------------------|------------------|
| Due Date | Carried out on | Surveyor's signature | Surveyor's stamp |
| 09/24/2021 | | | |
| 03/24/2022 | | | |
| 09/24/2022 | | | |
| 03/24/2023 | | | |
| 09/24/2023 | | | |
| Unscheduled | | | |
| Unscheduled | | | |

General conditions for the approval

- The initial conditions verified by RINA at the time of the approval are to be maintained
- Any changes to the initial conditions are to be promptly communicated to RINA, which reserves the right to repeat the relevant assessment
- RINA personnel are to be allowed to witness during the performances of activities, upon their request
- The activities are to be carried out in compliance with the RINA Rules and/or other applicable Rules
- RINA may revoke the approval in the case of modifications to requirements or conditions for the approval
- Should the specified regulations or standards be amended during the validity of this certificate, the product is to be reapproved

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prior to it being placed on board vessels to which the amended regulations or standards apply.

g) This certificate loses its validity in case the EC type Examination (Module B) certificate is no more valid.

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 RINA Services S.p.A

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