



Certificate Of Fire Approval

This is to certify that the product detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations and with the International Convention for the Safety of Life at Sea, (SOLAS), 1974, as amended, for use on ships and offshore installations classed with Lloyd's Register, and for use on ships and offshore installations when authorised by contracting governments to issue the relevant certificates, licences, permits etc.

Manufacturer	Mäkelä Alu Oy
Address	Mäkeläntie 2, 62380 Luoma-aho, Finland
Type	MATERIAL HAVING LOW FLAME SPREAD CHARACTERISTICS & NOT CAPABLE OF PRODUCING EXCESSIVE SMOKE & TOXIC PRODUCTS OF COMBUSTION
Description	Fire Resisting Material – Type: “Decoral decorative powder coating” Paint System
Trade Name	Decoral decorative powder coating
Specified Standard	IMO Res. MSC.307(88) – (2010 FTP Code), Annex 1 Part 5 and Annex 2

This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Lloyd's Register Marine Polska sp. z o. o. of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document and its supplementary Type Approval Terms and Conditions form part of this Certificate.

This certificate remains valid unless cancelled or revoked, provided the conditions in the attached Design Appraisal Document are complied with and the equipment remains satisfactory in service.

Al Zwycięstwa 13a, Gdańsk, 80-219, Poland

Marta Walk

Senior Surveyor to Lloyd's Register Marine
Polska sp. z o. o.
A member of the Lloyd's Register group

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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR23264879SF

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions, and this Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Eurofins Expert Services Oy, Fire Test Report No. EUFI29-21005625-T1, dated 20 December 2021

CONDITIONS OF CERTIFICATION

1. When applied to a metallic substrate.
2. The specimen consisted of the following paint scheme applied sequentially from the substrate:
 - One layer of polyurethane powder paint, 50µm-120µm thickness;
 - One layer of Decoral System, 15µm film thickness;
3. Smoke and toxicity criteria are satisfied by meeting the total heat release (Qt) and peak heat release rate (qp) as stated in IMO Fire Test Procedures Code, Annex 2, Section 2.2).
4. Composition of individual coatings, including any flame retardants, to be maintained in production in accordance with originally tested composition formula.
5. Production items are to be manufactured in accordance with a quality control system which shall be maintained to ensure that items are of the same standard as the approved prototype.
6. The Certificate holder is solely responsible for the products supplied under this Certificate and to ensure that their products, whether manufactured by themselves or their licensee manufacturers, if agreed by Lloyd's Register, are fully compliant with the relevant statutory regulations and Lloyd's Register Class Rules as applicable and designed, manufactured and installed to the same quality and specifications as the prototype tested, including components that are designed and manufactured by third parties.

PLACES OF PRODUCTION

Mäkelä Alu Oy
Mäkeläntie 2,
62830 Luoma-aho,
Finland.



Page	3 of 3
Certificate No:	LR23264879SF
Issue Date:	12 June 2023
Expiry Date:	11 June 2028
Reference:	UKITSO/FIRE/TA/MW/WP50475576/PRJ11100412143

DESIGN APPRAISAL DOCUMENT

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR23264879SF

M. Walk

Marta Walk
Senior Specialist, Fire & Safety
Statutory Discipline Team, Marine & Offshore
Lloyd's Register EMEA

Supplementary Type Approval Terms and Conditions

This certificate and Design Appraisal Document relates to type approval, it certifies that the prototype(s) of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein, it does not mean or imply approval for any other use, nor approval of any products designed or manufactured otherwise than in strict conformity with the said prototype(s)

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