

EU RO Mutual Recognition Technical Requirements

ELECTRICAL INSULATION MATS	Version	0.1
	Adoption Date:	1 February 2023
	Application Date:	1 July 2023
	Tier	6
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1. PRODUCT DESCRIPTION

1.a General description of the product

Electrical insulation mats are made of elastomer for use as a floor covering for the electrical protection of ship crew.

1.b Application limitations†

These Technical Requirements can be applied to any electrical insulation mats installed in ship.

† The EU MR type approved product is generally not used as a stand-alone product, but integrated as component in a sub-system or system. When a product is presented with an EU RO MR Type Approval Certificate for given application, its acceptability with regards to conditions defined in 1b, 1c and 1d of this Technical Requirement will be evaluated by the EU RO in charge of classing the ship or being in charge of the unit/system certification.

1.c Intended use

Electrical insulation mats are installed on floor of switchboards, starter panels local control panels, etc.

1.d System context

Nil

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2. DESIGN EVALUATION

2.a Engineering evaluation requirements

2.a i. Technical Requirements

Electrical insulation mats shall be complied with the requirements of IEC 61111.

2.a.ii. Technical documents to be submitted

IMPORTANT: The English Language shall be used for all submitted documents.

Prior to tests:

- a) Proposed test program and test schedule;
- b) Description of the test specimens and explanation of the selected test sample(s) providing evidence that the selected sample meets the most rigorous and demanding requirements;
- c) Product descriptions, data sheets, assembly drawings, dimension drawings, etc. clearly identifying the product;
- d) Complete accreditation certificate of the test laboratory (prior to the first test only; changes in the scope of accreditation shall also be advised);
- e) Detail of production sites;
- f) Product specification;
- g) Application, working area;
- h) Instruction on fitting, assembly and operation;
- i) QM-certificate according to ISO 9001.

After completion of tests:

- j) The test report with an identification number shall contain all relevant data and test results including place and date of the tests, the names of the responsible personnel carrying out the test;
- k) Type reference and serial number of the products tested;
- l) Test reports and test records shall be signed by the personnel members in charge of the test and are to be confirmed by the EU RO by signing and marking the test report.

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2.b Type testing requirements

- a) Detailed requirements of the type test shall be in accordance with IEC 61111 "Live working - Electrical insulating matting";
- b) All tests shall be performed on the agreed test samples selected from the production line or 'at random' from stocks†;
- c) Tests shall be carried out in the presence of the EU RO Surveyor. In case where the tests are conducted at Nationally Accredited Laboratories, the presence of the EU RO Surveyor may be omitted†.

† For further clarification of witnessing of tests and sampling the test specimen(s), refer to paragraphs 6, 7 and 8 of the EU RO "Design Evaluation Scheme" procedure (Appendix V of EU RO Framework Document for the Mutual Recognition of Type Approval found on [Technical Requirements \(euomr.org\)](http://www.euomr.org/technical-requirements))

2.c Type testing requirement for certificate renewal

The manufacturer is to notify the RO of any modification or changes to the manufacturing specifications that may affect the MR TA to be renewed.

3. PRODUCTION REQUIREMENTS

- a) Refer to EU RO "Product Quality Assurance (PQA)" procedure (Appendix VI of EU RO Framework Document for the Mutual Recognition of Type Approval found on [Technical Requirements \(euomr.org\)](http://www.euomr.org/technical-requirements));
- b) In general, IEC 61111 shall apply. Each electrical insulation mat shall pass visual inspection and measurements in accordance with IEC 61111 sub-clause 5.2.

4. MARKING REQUIREMENTS

Manufacturers of the approved equipment are, in principle, to mark the product before shipment for identification of approved equipment as per referenced standard. In addition, and as a minimum, the following items to be marked at the suitable place:

- a) Manufacturer's name or equivalent;
- b) Type No. and Serial No.;
- c) Symbol: IEC60417-5216(2002-10);
- d) Category if applicable;

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- e) Class designation;
- f) Date of Manufacture.

5. TYPE APPROVAL CERTIFICATE CONTENT

The EU RO MR Type Approval Certificate shall contain the minimum information as defined in the EU RO Framework Document for the Mutual Recognition of Type Approval - see Appendix I of EU RO MR Type Approval Certificate Information.

The following information is specifically applicable to products relevant to this technical requirement and shall be included on the EU RO MR Type Approval Certificate:

- a) Technical data according to IEC marking;
- b) Reference to approved technical documents;
- c) Reference to testing standards and relevant test reports;
- d) Environmental conditions;
- e) Application and limitations.

6. APPROVAL DATE AND REVISION NUMBER

Date	Revision	Comment
2018-01-01	0.0	Approved by EU RO MR Steering Committee
2023-02-01	0.1	Added para 2.c Added para 2.9 Copyrights (ref. 21030_)

7. BACKGROUND INFORMATION / REFERENCES

- a) EU RO Framework Document for the Mutual Recognition of Type Approval;
- b) IEC 61111;
- c) IEC 60417-5216.

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8. MAINTENANCE & CLARIFICATION OF TECHNICAL REQUIREMENTS

Anyone wishing to propose changes to this document or request clarification of technical issues should contact the EU RO MR Group Secretariat in the first instance:

Secretariat@euomr.org.

Review and approval of change requests shall follow the EU RO MR Maintenance Process detailed in the EU RO Framework Document for the Mutual Recognition of Type Approval: [Technical Requirements \(euomr.org\)](http://www.euomr.org/technical-requirements)

9. LEGAL PROVISIONS / COPYRIGHT

a) Underlying legal provisions in accordance with EU RO Framework Document for the Mutual Recognition of Type Approval;

b) Copyright © 2022. All EU RO MR Group rights reserved.

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