

# EU RO Mutual Recognition Technical Requirements

<b>ANTI-ACID PAINTS (BATTERIES' STORAGE ROOMS)</b>	Version	0.0
	Adoption Date:	1 January 2018
	Application Date:	1 July 2018
	Tier	6
This document is subject to controlled issue and can be found here: <a href="http://www.euomr.org/technical-requirements">http://www.euomr.org/technical-requirements</a> <b>*** Uncontrolled if downloaded or printed ***</b>		

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## 1. PRODUCT DESCRIPTION

### 1.a General description of the product

Anti-acid paints intended for protection of the interior of battery storage room against corrosion by electrolyte.

### 1.b Application limitations†

These Technical Requirements apply to the paints intended for protection of the interior of compartment or location to store battery using an acid electrolyte.

† 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

Protective coating for the interior of battery storage rooms.

### 1.d System context

As per item 1.c.

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## 2. DESIGN EVALUATION

### 2.a Engineering evaluation requirements

#### 2.a i. Technical Requirements

Anti-acid paints intended for protection of the interior of battery storage room against corrosion by acid electrolyte shall be manufactured so that the type testing requirements indicated in the para. 2.b. are to be complied with.

#### 2.a.ii. Technical documents to be submitted

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

- a) Compositions for every brand of products, including:
  - i. Product name and identification mark and/or number;
  - ii. Materials, components and composition of the coating system;
- b) Manufacturer's instructions and recommendations for use, including:
  - i. Surface preparations,
  - ii. Mixing and agitation,
  - iii. Minimum and maximum dry film thickness,
  - iv. Method of application,
  - v. Drying and overcoating method,
  - vi. Limitations,
  - vii. Storage.

### 2.b Type testing requirements

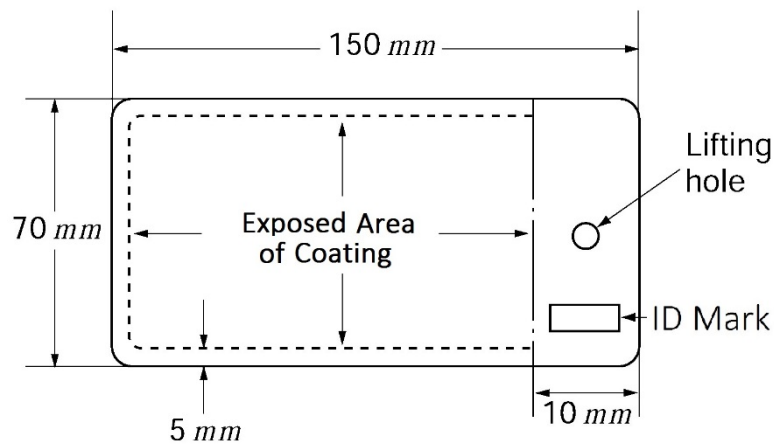
#### Test coupons

- a) Four (4) test coupons made of glass or steel panel shall be prepared in standard shape of 2 mm thickness as shown in Fig. 1, unless otherwise specifically agreed.
- b) The test panels shall be coated on both sides according to the coating method and drying condition specified by the manufacturer.
- c) Three (3) test panels for immersion test are to be overcoated with paraffin or wax, etc., about 5 mm band in the edges.
- d) A fourth test panel is to be used as a comparison sample.

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Fig. 1



## Test procedure

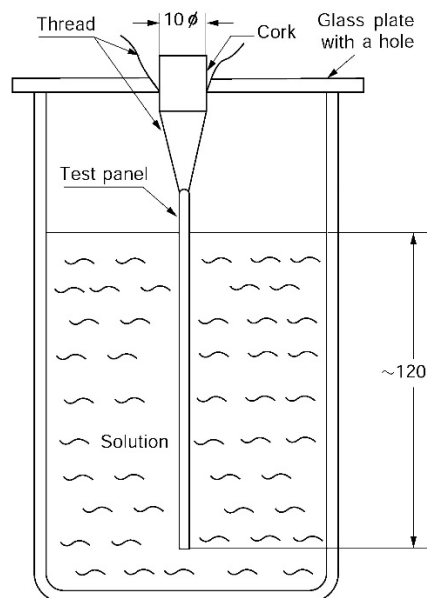
- e) Three (3) glass bottles filled with the same acid solutions (5%, 7.5%, 10%, respectively) as the electrolyte solution used in the battery up to 150mm in depth shall be prepared as shown in Fig. 2.
- f) Three (3) test panels shall be hung in immersion up to 120mm, and kept for 480 hours at normal room temperature.
- g) In order to adjust immersion of the test panel, two strings of thread fixed to the test panel and penetrated through the gap between a hole in the glass plate and the cork should be used as shown in Fig. 2.
- h) After 480 hours, the test panels shall be removed from the glass bottles and washed carefully with water at room temperature and then drained off.
- i) The test panels shall be placed perpendicularly at room temperature for two hours and the coating shall be examined. The edges of test panels and the coating within 10mm in width from the immersion level should not be examined.
- j) At least two (2) test panels shall be examined with the test panel for comparison sample. No indications of crack, blister, peeling, pinhole, softening and elusion should be visible. There shall be no great change in colour and gloss.
- k) Test specimens shall be selected from production line or at random from stocks.†

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- l) Test for type approval shall be carried out in the presence of a RO surveyor. In cases where the tests are conducted at Nationally Accredited Laboratories, the presence of the EU RO surveyor may be omitted.†

Fig.2



†For further clarification of witnessing of tests and sampling the test specimen(s), refer to paragraph 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 <http://www.euomr.org/Guidance%20for%20Mutual%20Recognition>)

## 3. PRODUCTION REQUIREMENTS

Refer to EU RO "Product Quality Assurance (PQA)" procedure (Appendix VI of EU RO Framework Document for the Mutual Recognition of Type Approval).

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## 4. MARKING REQUIREMENTS

Manufacturers of the approved product are, in principle, to mark the container before shipment for identification of approved product 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 designation,
- c) Lot No. and date of manufacture,
- d) Storage condition.

## 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.

## 6. APPROVAL DATE AND REVISION NUMBER

Date	Revision	Comment
2018-01-01	0.0	Approved by EU RO MR Steering Committee

## 7. BACKGROUND INFORMATION / REFERENCES

- a) EU RO Framework Document for the Mutual Recognition of Type Approval;
- b) ISO 2812-1 (Determination of resistance to liquids).

## 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](mailto:Secretariat@euomr.org).

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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: <http://www.euomr.org/Guidance%20for%20Mutual%20Recognition>

- END -

CONTROLLED DOCUMENT