



**European Union Recognized Organization (EU RO)
MUTUAL RECOGNITION TYPE APPROVAL CERTIFICATE**

in accordance with Article 10.1 of EU Regulation 391/2009

Manufacturer **Marine Service Jaroszewicz S.C.**

Address **ul. Bielanska 23, 70-703 Szczecin, Poland**

Product*
Two Component Polymer Material on the Base of Epoxy EPY

Code of nomenclature **13350000**

This is to certify to the above named Manufacturer, that the Product referred to herein has been inspected for the Manufacturer, pursuant to the relevant requirements of the European Union Recognised Organisation Mutual Recognition procedure, required by Article 10.1 of EU Regulation 391/2009, and has been found in accordance with those requirements and below mentioned Rules/Standards:

EU RO Technical Requirements for Resin Chocks, version 0.3 dated 01.04.2016

This Type Approval Certificate is valid until **01.03.2024**

This Type Approval Certificate becomes invalid in cases stipulated in European Union Recognized Organization Mutual Recognition Procedure.

Place of issue **Gdansk, Poland** Date of issue **01.03.2019** No. **19.20126.258**

Russian Maritime Register of Shipping **N. Mayuk**
(signature) (name)

* Additional information see overleaf



Technical data

The chocking compound is approved for foundation chocking of main and auxiliary engines, reduction gear, rudder actuators, stern tubes and bearings, deck machinery and other auxiliary machinery.

Maximum total surface pressure :

Max. service temperature, C :	40	50	60	70	80
For equipment that should be aligned, N/mm .	10.0	8.7	7.8	6.4	5.0
For equipment that should not be aligned, N/mm.	30.0	30.0	30.0	15.0	15.0

Max. specific load due to weight : 0.9 N/mm.

Design Evaluation Certificate No. 19.90112.258 of 28.02.2019

issued by **RS** which is EU RO and meets Article 10 of Regulation (EC) No. 391/2009 of the European Parliament.

Production quality assurance assessment has been carried out by Russian Maritime Register of Shipping.

Report No. 19.20125.258 of 01.03.2019

Application and Limitations

1. Each specific installation of cast resin chocks is to be carried out in compliance with installation drawings approved on case-by case basis, according to each specific R.O. Rules. Such specific approval will normally take into account, as minimum the following:
- Total deadweight of supported machinery; - Number, size, arrangement and material of chocks and bolts, complete with relevant detailed drawings;
 - Bolts pre-loaded and/or elongation, complete with details of tightening procedures; - Locking arrangements for bolts and calculations of bolt elongation for bolt connection securing;
 - Longitudinal and lateral stopping arrangements; - Sealing arrangements (for installation in stern tube or shafts struts);
 - Anti-rotation devices (for shaft bearings and rudder stock bearings/bushes); - Manufacturer instructions (including instruction for special cases).
2. The chocks may only be poured by companies authorized by the cast resin manufacturer whilst maintaining the boundary conditions required by the process. Authorization respectively evidence of training the personnel performing the cast resin process by the cast resin manufacturer has to be presented to the local surveyor.

When a product is presented with this EU RO MR Type Approval Certificate for given application, its acceptability with regards to the limitations stated in the certificate conditions defined in 1b, 1c and 1d of the applied Technical Requirement will be evaluated by the EU RO in charge of classing the ship or being in charge of the unit/system certification.

Notes:

- 1) Refer to the agreed MR Technical Requirements for additional MR TAC information that may be specifically applicable to certain products - <https://www.euromr.org/technical-requirements>;
- 2) List of MR TACs issued by the EU ROs can be found by <https://www.euromr.org/links-to-mrcertificates>.
- 3) As per clause 9 of the Terms & Conditions for Mutual Recognition of Type Approval, the manufacturer will be required to agree that it will fulfil the obligations arising out of its quality assurance scheme as approved during production. The manufacturer certifies it has kept the accredited certification body and the EU RO that issued the MR TAC duly informed of any intended design changes or updating of the production quality assurance scheme for its consideration with regard to the validity of the MR TAC. The manufacturer will apply annually for periodical assessment by the EU RO to show that the production under the MR TAC and the quality assurance scheme are being satisfactory maintained;
- 4) MR TACs are valid for a maximum of 5 years as per clause 10 of the Terms & Conditions for Mutual Recognition of Type Approval;
- 5) For more information on the factors affecting the validity of MR TACs, see clause 11, 12 and 13 of the Terms & Conditions of Mutual Recognition of Type Approval.
- 6) For implementation of the amendments to Appendix I of Version 9.0 of the Framework Document by the EU ROs into their internal procedures and MR TAC templates, an application period of 6 months as from 1 July 2018 applies.

The product shall be delivered with a copy of this Type Approval Certificate





**European Union Recognized Organization (EU RO) Mutual Recognition
DESIGN EVALUATION CERTIFICATE***

in accordance with Article 10.1 of EU Regulation 391/2009

Type, model, purpose

Two Component Polymer Material on the Base of Epoxy EPY

Manufacturer

Marine Service Jaroszewicz S.C.

Address

ul. Bielanska 23, 70-703 Szczecin, Poland

Authorized Representative(s)

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Technical documentation reviewed

The set of Technical documentation for the "TWO COMPONENT POLYMER MATERIAL ON THE BASE OF EPOXY EPY". Approved by RS Letter No. 258-381-12/doc-59350 dated 28.02.2019.

Surveys and tests carried out in accordance with EU RO MR Technical Requirement showed the following:

The results of tests that were carried out by Nationally accredited testing laboratories, i.e. "Laboratorium Wytrzymałości Materialow" and "Laboratorium Badan Cech Pozarowych Materialow" of the "Zachodnepomorski Uniwersytet Technologiczny w Szczecinie" has been revived. The Scope and results of tests are fully comply with the applicable EU RO MR technical requirements. Test results are available in the following test reports: TR ZUT 4-2012 EN dd. 02-2011, TR ZUT 7-MSJ-2011 EN dd. 07-2011, TR PDPS 1998 EN dd. 1998, TR ZUT 5-2013 EN dd. 12-2013, TR PS 12.2000 EN dd. 12-2000, TR PS 09.1995 dd. 09-1995, TR PS 1-2004 EN dd. 02-2004, TR PS 12.1995 EN dd. 12-1995, TR PS 19-1991 EN dd. 07-1991, TR ZUT 6-2013 EN dd. 12-2013, TR ZUT 7-2013 EN dd. 12-2013, TR ZUT 8-2011 EN dd. 06-2011, TR PS 23-94 EN dd. 10-1994.

* The product can be accepted for installation on board of ship with valid TAC EU RO MR only.

Details of product:

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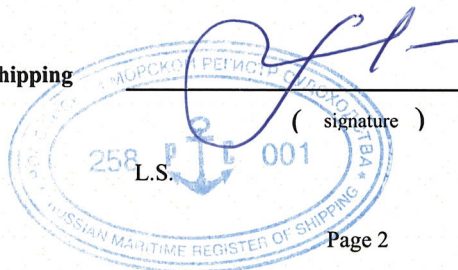
CONCLUSION

Two Component Polymer Material on the Base of Epoxy EPY is comply with EU RO technical requirements for Resin Chocks.

Code of nomenclature **13350000**

Place of issue **Gdansk, Poland** Date of issue **28.02.2019** No. **19.90112.258**

Russian Maritime Register of Shipping



(signature)

N. Mayuk

(name)

12.2 – EU Recognised Organisations (EU ROs)

