



RINAVE
Registro Internacional Naval

CERTIFICADO DE APROVAÇÃO DE MODELO

TYPE APPROVAL CERTIFICATE

This is to certify that the design of:

POURABLE COMPOUND FOR FOUNDATION CHOCKING EPOXY BASED RESIN CHOCKFAST ORANGE PR 610 TCF

Manufactured by:

**PHILADELPHIA RESINS CORPORATION
MONTGOMERYVILLE, U.S.A.**

Is found to comply with the **Rules for Classification of Steel Ships.**

For traceability of this Type Approval Certificate the products are to be marked:

- **Name of Manufacturer or Trade Mark.**

The approval is valid only for the fields of application and operational limitations, as follows:

Application on board ships:

- **Foundation chocking of diesel engines, reduction gears, thrust bearings, rudder actuators and other auxiliary machinery.**
- **The allowable chock stress versus temperature is according to the table:**

T(0°C)	90	80	70	60	50	40	30	20
P(N/mm ²)	2.3	4.4	5.9	7.0	8.0	8.7	9.4	10

Any significant change in design and/or construction of the above product(s) may render this Certificate with Appendix invalid.

Certificate No.: **LIS R03CC0322**

Validity: **22.10.2008**

Head of Department: **Rodrigo Araújo**



File No.: **4.010**

Lisboa, **22.10.2003**

Surveyor: **Angela Fãulha**

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DESIGN APPROVAL CONDITIONS

The approval is based on the following documentation:

- Manufacturer's Specification.

PRODUCT CERTIFICATION CONDITIONS

Documents, signboards, etc. which are to accompany each product/delivery:

- Manufacturer's instructions for processing the resin.
- A copy of Type Approval Certificate.

OTHER CONDITIONS

- Chocking plan with boltstress calculation to be submitted for approval in each particular case.
- Alignment of machinery prior to pouring and tightening-up of main engine holding-down bolts, controlled at installation after trial when cooled down is to be checked in the presence of RINAVE Surveyor.
- Manufacturer (or authorized representative) supervision required for mixing and pouring of resin.
- After hardening of chocks and before tightening of the holding-down bolts a Barcol hardness test to be performed (min. value 40).