Maris Polymers[®] POLYURETHANE SYSTEMS

TECHNICAL DATA SHEET

Date: 01.06.2018 - Version 18

MARICOAT® 2000F Polyurethane self-leveling Floor Coating

Flame retardant / low-flame spread

The MARICOAT $^{\circledast}$ 2000F is a self-leveling, two component, semi-rigid, hard-elastic, thick layer polyurethane coating with high impact strength and very good resistance to acidic and alkali solutions.

Cures by reaction (cross linking) of the two components.

Uses

The MARICOAT $^{\ensuremath{\$}}$ 2000F is mainly used on ship decks and floors.

Due to its properties is widely used for:

- Exterior ship decks
- Interior ship decks
- Cabins
- Cabin Bathrooms (Showers)
- Engine Rooms, etc

The MARICOAT $^{\otimes}$ 2000F is also suitable for coating of concrete surfaces as:

- Car parking areas
- Warehouses
- Offices, etc.

Certifications

Certified by the Det Norske Veritas, DNV, with the EC TYPE-EXAMINATION CERTIFICATE:

Surface material and floor covering with low flame-spread characteristic: Coating Complies with the requirements in the following Regulations/Standards:

AnnexA.1, item No. A.1/3.18a and Annex B, Module B in the Directive SOLAS 74 as amended, Rg. II-2/3.29, II-2/3.40.5, II-2/5.3.2.4, II-2/6.2, II-2/9.7.1.1.1, II-2/9.7.4.4.3.1 & X/3, 2000 HSC Code 7.4.3.4, 7.4.3.5, 7.4.3.6 and IMO FTP Code



Packaging

Pails should be stored in dry and cool rooms for up to 9 months. Protect the material against moisture and direct sunlight. Storage temperature: 5⁰-30^oC. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

Solvent free.

- Provides enough elasticity to withstand ship movement
- Flame retardant (low flame spread)
- Certificated by the Det Norske Veritas DNV, for marine use, according SOLAS 74 and IMO FTP Code
- High impact resistant.
- Chemical resistant.
- Self-leveling, so it provides perfectly even flooring results.

Consumption

2-5 kg/m², depending on the coating thickness required.

This coverage is based on practical application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature, humidity, application method and finish required can alter consumption.

Colors***

The MARICOAT $^{\scriptscriptstyle (\!\!\!\!)}$ 2000F is supplied in grey. Other colors supplied on request.



Advantages

Maris Polymers[®]

POLYURETHANE SYSTEMS

TEST METHOD

ASTM D 2240

CALCULATED IN HOUSE LAB

IN HOUSE LAB

IN HOUSE LAB

IMO FTPC Part 5

IMO FTPC Part 5

ISO 1716: 1973

IMO FTPC Part 2

Diesel oil

Xylene

Salt Water 20%

Domestic Detergents

Conditions: 20°C, 50% RH

IMO Resolution MSC.61 (67) Part 5

IMO Resolution MSC.61 (67) Part 5 Test procedure IMO Resolution A.653(16)

Test procedure IMO Resolution A.653(16)

IMO Resolution MSC.61 (67) Annex 1 Part

+

+

+

+

PROPERTY RESULTS Pigmented Polyurethane resin Composition + Hardener Mixing Ratio A : B = 100 : 40 by weight Hardness (Shore A Scale) 75 <u>+</u> 5 100 % (Solvent free) Solids Content Flash point > 200°C Temperature strength 80°C (Fully cured) -40° C (Fully cured) Low Temperature Brittleness Application Temperature 5°C to 30°C Pot-Life 30 minutes Tack Free Time 5 hours Light Trafficking 12 hours Final Curing time 7 days Classification as a floor covering regarding Pass **ONSTRUCTION** Surface Flammability Classification as a bulkhead, wall and ceiling Pass lining regarding Surface Flammability Maximum gross calorific value 14.0 MJ/kg (dry mass) Meet the criteria for: Floor Coating Smoke and toxicity and also Surface Material used for Bulkheads, Linings and Ceilings Chemical resistances** Water + Hydrochloric acid 5% + Potassium hydroxide 5% + Phosphoric acid 5% + Sodium hydroxide 5% Sulfuric acid 5% + + N-methyl-pyrrolidon (brake fluid) Ammonia 5% + $\{+ \text{ stable, } - \text{ unstable, } \pm \text{ stable for a short period (spillage).} \}$

Application

Technical data*

Surface Preparation

Careful surface preparation is essential for optimum finish and durability.

The surface needs to be clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the coating. Maximum moisture content should not exceed 5%. Old coatings, dirt, fats, oils, organic substances and dust need to be removed. Loose surface pieces and grinding dust need to be thoroughly removed. WARNING: Do not wash surface with water! Metal: The surface needs to be sandblasted.

Concrete: The surface needs to be grinded with a stone- or a diamond-grinding machine. New concrete structures need to dry for 28 days

Priming

Prime all surfaces with the MARIPOX[®] 2510 Primer, by using a roller, or a brush. Sprinkle oven dry silica sand (corn size 0.1-0.4mm) evenly onto the wet primer. After 12-18 hours - but not later than 36 hours - brush off any excessive aggregate and apply the MARICOAT[®] 2000F coating.

Mixing

Stir Component A well before using. MARICOAT® 2000F Component A and Component B should be mixed by low speed mechanical stirrer, according to the stipulated mixing ratio, for about 3-5 min.

ATTENTION: The mixing of the components has to be effected very thoroughly, especially on the walls and bottom of the pail until the mixture becomes fully homogeneous.

Self-leveling coating

For best results, the temperature during application and cure should be between 5°C and 30°C. Low temperatures retard cure while high temperature speed up curing. High humidity may affect the final finish.

Poor the MARICOAT® 2000F A+B mixture onto the surface and lay it out by teeth trowel, until all the surface is covered. Use a suitable spike roller on the still wet coating, to help encapsulated air escape. The next day apply another layer of the MARICOAT® 2000, by suitable sized teeth trowel and enflame the still wet coating with a torch, to help encapsulated air escape. The MARICOAT® 2000F A+B can be charged, only with humidity free, oven-dried silica sand, up to 50% by weight.

The next day cover the MARICOAT® 2000F surface with one or two layers of MARIPUR® 7100 or MARIPUR® 7200 colored, if used exposed.

RECOMMENDATION: The thickness of the entire coating should not be less than 2mm.

ATTENTION: Please ensure to spike roll the wet coating very thoroughly, to prevent encapsulated air create bubbles and pinholes on the final surface of the coating. Also, please ensure consumption within the Pot Life.

WARNING: The MARICOAT® 2000 and/or the MARICOAT® SYSTEM is slippery when wet. In order to avoid slipperiness during wet

Maris Polymers[®] POLYURETHANE SYSTEMS

days, sprinkle suitable aggregates onto the still wet coating to create an anti-slip surface. Please contact our R+D Dept. for more details

Safety measures

MARICOAT[®] 2000F contains isocyanates. See information supplied by the manufacturer. Please study the Safety Data sheet.

Our technical advice for use, whether verbal, written or in tests, is given in good faith and reflect the current level of knowledge and experience with our products. When using our products, a detailed object-related and qualified inspection is required in each individual case in order to determine whether the product and /or application technology in question meets the specific requirements and purposes. We are liable only for our products of consistent quality within the scope of our General Conditions of Sale and Delivery. Users are responsible for complying with local legislation and for obtaining any required approvals or authorizations. Values in this technical data sheet are given as examples and may not be regarded as specifications. For product specifications contact our R+D department. The new edition of the technical data sheet superseds the previous technical information and renders it invalid. It is therefore necessary that you always have to hand the current code of practice.

* All values represent typical values and are not part of the product specification. ** Chemical resistance tests time: 24hours. *** Colors tend to yellow upon exposure to UV radiation. Nevertheless, mechanical properties remain unchanged.

