

# Transpoxy MasterMio

## Product description.

A high solids epoxy coating pigmented with micaceous iron oxide. Transpoxy MasterMio can be used as intermediate coat or can be left uncoated. It offers excellent good resistance against abrasion and impact. It can be recoated with Transpoxy or Transurethane systems. Complies with bridge coatings specifications of the UK-Highway Agency.

## Physical properties

|                  |                                |
|------------------|--------------------------------|
| Product code     | 4.46                           |
| Colour           | Grey                           |
| Texture          | Flat                           |
| Volume Solids    | Approx. 78%                    |
| Specific gravity | Approx. 1.85 g/ml              |
| VOC              | Approx. 198 g/liter            |
| Flashpoint       | Both base and hardener > 30 °C |

## Usage data

| Film thickness | Dry film thickness per coat (µm) | Wet film thickness per coat (µm) | Theoretical spreading rate (m <sup>2</sup> /l) |
|----------------|----------------------------------|----------------------------------|--|
| Range          | 80 - 250                         | 105 - 325                        | 9.8 - 3.1                                      |
| Recommended    | 125                              | 165                              | 6.2  |

**Mixing ratio** By volume, base to hardener: 80 : 20

## Curing Times

|               | Substrate temperature |         |         |
|---------------|-----------------------|---------|---------|
|               | 10°C                  | 20°C    | 30°C    |
| Touch dry     | 4 Hours               | 2 Hours | 1 Hour  |
| Dry to handle | 16 Hours              | 8 Hours | 4 Hours |
| Full cure     | 14 Days               | 7 Days  | 4 Days  |
| Potlife       | 4 Hours               | 2 Hours | 1 Hour  |

Drying and curing times are determined under controlled temperatures and relative humidity below 85 %, and at average of the DFT range for the product and should be considered as guidelines only.

The actual drying time/times may be shorter or longer, depending on film thickness, temperature, ventilation, humidity, preceding paint system etc.

## Recoating intervals - see application section

| Recoated with        | Substrate temperature |          |         |          |         |          |
|----------------------|-----------------------|----------|---------|----------|---------|----------|
|                      | 10°C                  |          | 20°C    |          | 30°C    |          |
|                      | Min                   | Max      | Min     | Max      | Min     | Max      |
| Single pack products | -                     | -        | -       | -        | -       | -        |
| 2-pack products      | 16 Hours              | 3 Months | 8 Hours | 3 Months | 4 Hours | 3 Months |

Recoating information is given for guidance only and subject to local climate and environmental conditions. Consult your local Transocean representative for specific recommendation.

As a general rule, the best intercoat adhesion is achieved when the subsequent coat is applied before the preceding coat has been fully cured. After prolonged exposure times it may be necessary to roughen the surface to ensure intercoat adhesion.

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## Surface Preparation.

### Steel - Blast cleaning

All surfaces should be clean, dry and free from contamination. Surfaces should be treated in accordance with ISO 8504:2000. All edges shall be ground to a minimum radius of 2 mm. Remove weld spatter and smooth weld seams by using disc grinders, chipping hammers or other suitable power tools. Sharp edges, weld seams, corners and other areas that are likely to receive less dry film thickness than specified, should be stripe coated.

The surfaces shall be blast-cleaned to min. Sa 2½ (ISO 8501-1:2007). The surface profile and the anchor pattern shall be between 40 µm and 70 µm.

The abrasives shall be free from oil, grease, moisture, chloride contamination etc.

### Minor repair / Touch-up

All surfaces should be clean, dry and free from contamination. Surfaces should be treated in accordance with ISO 8504:2000.

Any corroded areas should be prepared by power-tool cleaning or water jetting.

Power-tool cleaning to min. St 2, preferably St 3 (ISO 8501-1:2007). Care shall be taken to ensure that power-tool cleaning does not polish the steel surface. If the surface being prepared lies adjacent to a coated surface, the power tool cleaning shall overlap the coated surface by at least 25 mm and the coated surface shall be feathered.

Water jetting in accordance to ISO 8591-4: 2006 to a cleanliness of Wa 2 or better for atmospheric exposure. Acceptable flash rust degree is M (medium) but degree L (light) is preferred.

A water pressure of at least of 1000 bar (approx. 15.000 psi) is recommended.

### Major repair/ Refurbishment

All surfaces should be clean, dry and free from contamination. Surfaces should be treated in accordance with ISO 8504:2000.

Corroded areas to be prepared by blast cleaning or water jetting.

Blast Cleaning: The surfaces shall be blast-cleaned to min. Sa 2½ (ISO 8501-1:2007). The abrasives shall be free from oil, grease, moisture, chloride contamination etc.

Water jetting: Water jetting in accordance to ISO 8591-4: 2006 to a cleanliness of Wa 2,5. Acceptable flash rust degree is M (medium) but degree L (light) is preferred.

A water pressure of at least of 1000 bar (approx. 15.000 psi) is recommended.

Alternatively a suitable priming system can be used. When recoating zinc primed products, ensure the primer has been fully cured. Zinc salts products shall be removed by high pressure fresh water cleaning. Contact your local Transocean office for more information.

### Coated substrates

All surfaces should be clean, dry and free from contamination. Surfaces should be treated in accordance with ISO 8504:2000.

Ensure compatibility of the coated substrates with the selected paint system. If the remaining part of the existing coating system needs to be sweep-blasted, fine abrasive shall be used to avoid damage to the coating system.

When recoating aged coated substrates, damaged areas must be removed back to a firm edge. Light abrade or sweep-blast the surface in order to provide a physical key for adhesion.

When recoating zinc primed products, ensure the primer has been fully cured. Zinc salts products shall be removed by high pressure fresh water cleaning.

Contact your local Transocean office for more information.

### Mixing

The product is supplied in 2 containers as a unit. Always mix a complete unit in the proportions supplied. Do not mix more material than can be used within the specified pot life.

- Stir the base (Part A) with a clean mechanical mixer.
- Then add the entire contents of Curing Agent (Part B) and mix thoroughly.

Avoid too vigorous mixing as it leads to air inclusion, which may result in poor application results. If thinner is required, only add after mixing of the two components.

Irrespective of the substrate temperature, the advised minimum temperature of the mixed paint is 15 °C. At lower temperatures, more thinner may be required to obtain a proper application viscosity, which may result in lower sag resistance and slower curing.

### Conditions

The temperature of the substrate should be at least 10°C and at least 3°C above the dew point of the air.

Temperature and relative humidity should be measured in the vicinity of the substrate.

In general, the maximum recommended surface temperature is 40°C. Higher steel temperatures are acceptable provided dry-spray is avoided by proper spray application and extra thinning if required. In extreme cases it may be necessary to reduce film thickness in order to avoid sagging.

When applying the paint in confined spaces, provide adequate ventilation during application and drying. Observe local regulations. Please contact your local Transocean representative for a specific recommendation.

### Methods

|                                   |                    |                 |
|-----------------------------------|--------------------|-----------------|
| <b>Guiding data Airless spray</b> | Pressure at nozzle | 180 – 250 bar   |
|                                   | Nozzle size        | 0.41 - 0.58 mm. |
|                                   | Spray angle        | 40 - 80 degrees |
|                                   | Volume of thinner  | 0 - 5%          |

|                              |                   |              |
|------------------------------|-------------------|--------------|
| <b>Guiding data Airspray</b> | Pressure          | 3 - 5 bar    |
|                              | Nozzle size       | 1.5 - 3.0 mm |
|                              | Volume of thinner | 0 - 15%      |

**Brush / Roller** Suitable but airless spray is recommended. Multicoats may be needed to achieve the specified dry film thickness. Volume of thinner: 0 - 10%.

**Thinner** Transocean Epoxy Thinner 6.03  
If thinning is necessary, this should be added after mixing of the two components. The recommended level of thinner is dependent on thickness and conditions. In certain circumstances, it may be required to exceed the stated level of thinner. However, as a general rule do avoid excessive thinning as it will result in lower sag resistance and slower cure. In addition it may cause solvent entrapment, possibly risking blistering, pinholing and/or other coating defects.

**Cleaner** Transocean Epoxy Thinner 6.03

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**Film thickness.**

The paint must be applied as a continuous layer and as close to the specified wet film thickness as possible. Use a wet film thickness gauge to verify that the correct wet film thickness is applied.

Over application, excessive thinning, wrong application techniques etc. may lead to runs and sagging of the paint. When the paint is still wet, such effects can be rectified by brushing out the defected areas.

When the defect is noticed after curing of the paint, repair the affected areas by disc sanding to an even smooth surface and apply an additional coat of paint.

**Stripe Coating.**

Stripe coating may be required to achieve the specified film thickness on specific areas such as edges, corners, weld seams etc. Use a round brush and ensure proper wetting of all areas. Avoid excessive application as it will lead to brush marks and may also result in air entrapment, which is detrimental to the paint's performance.

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## Additional Product information

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### Storage and shelf life

The product must be stored in accordance with national regulations. The cans are to be kept in a dry, cool, well ventilated space and away from source of heat and ignition. Cans must be kept tightly closed and kept in original containers until required for use.

Partly used containers should be re-sealed securely and stored according to the recommended manner. (See section 7 of relevant MSDS).

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### Health and safety

Observe the precautionary notices on the label of the container. A material safety data sheet is available upon request and national or local safety regulations should be followed. This product is intended for use by professional applicators.

As a general rule, avoid skin- and eye contact by wearing overalls, gloves, goggles, mask, etc. Spraying should be carried out under well-ventilated conditions. This product contains flammable materials and should be kept away from sparks and open flames. Smoking in the area should not be permitted. Avoid the inhalation of vapours and particulates by the provisions of good natural ventilation sufficient to keep air-borne concentrations below the Occupational Exposure Standards during the application and drying of paint films.

In operations where natural ventilation is insufficient to achieve this - e.g. painting work in enclosed areas - exposure should be controlled by the use of local exhaust ventilation. When this is not reasonably practicable, suitable respiratory protective equipment must be worn. For spray application or when OES's are likely to be exceeded, use the respiratory equipment as recommended in for instance BS4275:1974. This specification gives advice on selection, use and maintenance of various types of breathing apparatus. Protect other persons in the area.

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### Disclaimer

The information in this data sheet is provided to the best of our knowledge. However, we have no control over either quality or condition of the substrate and other factors affecting the use and application of this product. Therefore, we cannot accept any liability whatsoever or howsoever arising from the performance of the product or for any loss or damage arising from the use of this product. Users should first carry out their own trials to ascertain the suitability of the product for their intended purpose.

This Data Sheet supersedes all previous Data Sheets supplied to you relating to this product. It contains important information which must be communicated to the user. The user must satisfy himself of the suitability of the product for the intended application and surface, as surface and application conditions are beyond our control. The user must also satisfy himself of the suitability of the product in circumstances other than those set out in this data sheet. The user should also maintain appropriate control procedures. Should further information be required, please contact our Technical Department.

Transocean Coatings employ a policy of continuous development and the technical data could be revised as a result of experience or new information becoming available.

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MID Number            446-1002

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Date of issue:            January 2017

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