# Transpoxy MIO Primer 164

**Product code:**
TO 1.64

A two-pack polyamide cured epoxy coating pigmented with micaceous iron oxide resulting in excellent barrier properties against penetration of water. The product offers good resistance against abrasion and impact. The product can be used as a primer on steel and stainless steel substrates.
It also can be used as intermediate coat in Transpoxy systems or can be left uncoated. The product offers resistance against dry heat up to 200°C. Transpoxy Mio Primer 164 is available in a regular and LT version, which enables application at lower temperatures (down to -15 °C).

## Physical properties:

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|---|---|
| Colour | Silvergrey |
| Gloss / Appearance | Flat |
| Volume Solids | Approx. 58 % |
| Specific gravity | Approx. 1.64 g/ml |
| VOC | Approx. 340 g/liter |
| Flashpoint | Both base and hardener >25°C |

## Usage data:

**Mixing ratio** 80:20 [4:1]

| **Film thickness** | Dry film thickness per coat (µm) | Wet film thickness per coat (µm) | Theoretical spreading rate (m²/l) |
|---|---|---|---|
| Range | 75 - 125 | 130 - 220 | 7.6 - 4.6 |
| Recommended | 75 | 130 | 7.6 |

| **Curing Times** | Substrate temperature | | | |
|---|---|---|---|---|
| | 10°C | 23°C | 30°C | |
| Touch dry | 12 Hours | 6 Hours | 4 Hours | |
| Dry to handle | 24 Hours | 12 Hours | 10 Hours | |
| Full cure | 14 Days | 7 Days | 4 Days | |
| Potlife | 6 Hours | 4 Hours | 2 Hours | |

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 may be shorter or longer, depending on film thickness, temperature, ventilation, humidity, preceding paint system etc.

**Recoating intervals - see application section**

| | Substrate temperature | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 10°C | | 23°C | | 30°C | | | |
| Recoated with | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. |
| Single pack products | | | | | | | | |
| 2-pack products | 24 Hours | Indefinite | 12 Hours | Indefinite | 8 Hours | Indefinite | | |

Recoating information is for guidance only and varies with local climate and environmental conditions. For specific recommendations, consult your local Transocean representative.
Best intercoat adhesion is achieved when the subsequent coat is applied before the preceding coat has fully cured. Extended recoating intervals apply only to ambient atmospheric exposure. After prolonged exposure, roughen the surface to ensure intercoat adhesion.

## 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 8504-1:2001. 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 8501-4: 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 8504-1:2001. 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 8501-4: 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. 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.

**Galvanized steel**
All surfaces should be clean, dry and free from contamination. Surfaces should be treated in accordance with ISO 8504:2000. So called 'white' zinc corrosion products should be removed by high pressure fresh water cleaning or blast cleaning. Blast cleaning shall be carried out by smooth sweep blasting, using a fine non-iron containing abrasive (e.g. aluminium oxide). The abrasives shall be free from oil, grease, moisture, chloride contamination etc. Surface roughness shall be in the range of 20 µm to 30 µm.

Ensure the zinc layer shall not be damaged; a smooth uniform surface roughness shall be achieved. No defects such as break through or crisping of the zinc layer shall occur.

**Stainless Steel**
All surfaces should be clean, dry and free from contamination. Surfaces should be treated in accordance with ISO 8504:2000. Blast cleaning shall be carried out by smooth sweep blasting, using a fine non-iron containing abrasive (e.g. aluminium oxide). The abrasives shall be free from oil, grease, moisture, chloride contamination etc. Surface roughness shall be in the range of 20 µm to 30 µm.

## Application:

**Mixing:**

**Conditions:**

The relative humidity should be <90% during application and curing, unless otherwise specified in the product documentation. The substrate temperature should be ≥5°C and ≥3°C above the dew point of the air. Air temperature and relative humidity should be measured at substrate.
Generally, the maximum recommended surface temperature is 40°C. Higher substrate temperatures are acceptable provided dryspray 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.

**Methods:**

| | | |
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| **Guiding data Airless spray** | Pressure at nozzle | 180 - 250 bar |
| | | 0.38 - 0.53 mm (0.015 - 0.021 in.) |
| | Spray angle | 40 - 80 degrees |
| | Volume of thinner | 0 - 5% |
| **Guiding data Airspray** | Pressure | 3 - 5 bar |
| | Nozzle size | 1.5 - 1.8 mm |
| | Volume of thinner | 0 - 10% |
| **Brush / Roller** | Suitable. Multicoats may be needed to achieve the specified dry film thickness. | |
| **Thinner** | Transocean Epoxy Thinner 6.03<br>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 | |

**Additional usage instructions**

The product offer dry heat resistance upto 200 °C. For this application the product needs to be applied in 2 layers of 100 micron dryfilm thickness each. Avoid over application or too early recoating as this may lead to solvent retention and may cause premature failure.
When exposed to long term dry heat conditions, some discolouration may occur but this will have no detrimental effect on the product properties.

## Additional Product information:

### Storage and shelf life

Storage: Store the product in compliance with national regulations in a dry, cool, well-ventilated area, away from heat and ignition sources. Keep materials in tightly closed original containers until use. Securely re-seal partially used containers and store as recommended. (See Section 7 of the relevant SDS.)

Shelf life: The stated value is a minimum; refer to “Guidance to Transocean Coatings Product Datasheets” for details.
Shelflife: Months

### Health and safety

Observe the safety warnings on the container label. A Safety Data Sheet (SDS) is available upon request.Comply with all applicable national and local safety regulations.
For professional use only. Wear appropriate PPE (overalls, gloves, goggles, respiratory protection, etc.) to avoid skin and eye contact.
Spraying should be carried out under well-ventilated conditions. If the product is flammable (see label/SDS), keep away from sparks, open flames, and heat sources. No smoking in the work area.
Avoid inhaling vapors and particulates. Maintain airborne concentrations below Occupational Exposure Limits (OEL) through adequate natural ventilation during application and drying.
In enclosed areas with insufficient ventilation, use local exhaust ventilation. If this is not feasible, wear a suitable respirator. Users must be trained in its proper use and limitations.

### Disclaimer

The information in this Product Data Sheet is provided in good faith and based on our current knowledge. However, Transocean Coatings cannot control substrate quality, surface preparation, application conditions, or environmental factors that may affect product application and performance. Accordingly, we accept no liability for the performance of this product or for any loss, damage, or injury arising from its use, whether direct, indirect, or consequential. Should any conflict arise between translations, the English version of this Product Data Sheet is authoritative and binding.

This Data Sheet supersedes all previous versions and must be communicated to all users. Users must:
- Conduct their own trials to verify the product’s suitability for their specific application and intended purpose.
- Confirm compatibility with intended substrates and conditions, which are beyond our control.
- Implement appropriate quality control procedures during application.
- Verify suitability for circumstances not covered in this Data Sheet.

Transocean Coatings maintains a policy of continuous product development. Technical data may be revised as new information or experience becomes available. For further information, contact our Technical Department.

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