# Transpoxy Resin System 7900

**Product code:**
TO 4.42

A two pack transparent epoxy coating system for white oil or crude oil bulk storage tanks. In conjunction with fibre glass mat, Transpoxy Resin System 7900 can be used as a reinforced laminate system to protect bottoms and walls of tanks against corrosion and various hydrocarbons.
When combined with laminate reinforcement, Transpoxy Resin System 7900 can be used in systems of 1500-3000µm dry film thickness (DFT), depending on the number of coats and layers of reinforcement.

## Physical properties:

| | |
|---|---|
| Colour | Transparent |
| Gloss / Appearance | Gloss |
| Volume Solids | Approx. 100 % |
| Specific gravity | Approx. 1.1 g/ml |
| VOC | Approx. 22 g/liter |
| Flashpoint | Both base and hardener >80 °C |

## Usage data:

**Mixing ratio** 67:33 [2:1]

| **Film thickness** | Dry film thickness per coat (µm) | Wet film thickness per coat (µm) | Theoretical spreading rate (m²/l) |
|---|---|---|---|
| Range | 150 - 500 | 150 - 500 | 10 - 2 |
| Recommended | 200 | 200 | 5.0 |

| **Curing Times** | Substrate temperature | | | |
|---|---|---|---|---|
| | 10°C | 23°C | 30°C | |
| Touch dry | 8 Hours | 4 Hours | 3 Hours | |
| Dry to handle | 24 Hours | 16 Hours | 10 Hours | |
| Full cure | 7 Days | 5 Days | 3 Days | |
| Potlife | 2 Hours | 1 Hour | Minutes | |

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 | 36 Hours | 10 Days | 24 Hours | 4 Days | 16 Hours | 2 Days | | |

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.

## 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:**

| | | |
|---|---|---|
| **Guiding data Airless spray** | Pressure at nozzle | 180 - 250 bar |
| | | 0.53 - 0.58 mm (0.021 - 0.023 in.) |
| | Spray angle | 40 - 80 degrees |
| | Volume of thinner | 0 % |
| **Guiding data Airspray** | Pressure | Not applicable |
| | Nozzle size | - |
| | Volume of thinner | - |
| **Brush / Roller** | Suitable but in general recommended for touch-up of small areas.<br>Volume of thinner: 0 – 5%. | |
| **Thinner** | This is a solvent free product.<br>Do not use any thinner except for cleaning equipment. | |
| **Cleaner** | Transocean Thinner 6.02 | |

**Additional usage instructions**

When combined with laminate reinforcement, Transpoxy Resin System 7900 can be used in systems of 1500-3000µm DFT, depending on the number of coats and type and number of layers of reinforcement. Density of glass fibre is generally in the range of 300 - 450 g/sq.m except for optional final tissue layer, depending on specification.

1. Preferably mix part A and part B with a mechanical stirrer. Do not mix more material than can be used in 1 hour at 20°C.
2. Pitted areas, corners, edges and weld seams should be stripe-coated by brush prior to a full coat application.
3. The laminate system consists of Transpoxy Resin System 7900 with one or two layers of the fibre glass mat plus eventually one layer of surfacing tissue.
4. Apply Transpoxy Resin System 7900 by roller or by spray. Apply fibre glass mat onto the Transpoxy Resin System 7900 and make sure that the adjacent layer of glass mat will overlap the first layer using approx. a 50% overlap. Density of glass fibre mat should be 450 g/sq.m.
5. Apply Transpoxy Resin System 7900 preferably by spray and compact by rolling with the spiked roller to force the glass mat into the wet resin. Roll until the glass mat is completely saturated and free of entrapped air. Repeat this procedure with every layer.
6. Allow ventilation during and after application of the coating system. Temperature of the ventilation air should lie between 20°C and 35°C. Continue ventilation until the system has fully cured.

Do not apply the coating when ambient temperature will be less than 12°C for more than 48 hours after application of the coating.

## 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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