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Waterborne Single-Component Truck Body Topcoat (SX-TRUCK-3000) Technical Data Sheet (TDS)

Waterborne Single-Component Truck Body Topcoat
Product Number: **SX-TRUCK-3000**

Product Type: Waterborne Eco-Friendly Topcoat

1. Product Description

This product is a high-performance waterborne topcoat, specially designed for truck bodies, vehicles, and outdoor metal surfaces of industrial equipment. It is formulated with waterborne alkyd resin and environmentally friendly additives, using water as the thinner. The coating has low odor during application, fast drying, excellent weather resistance, color and gloss retention, and decorative appearance.

2. Main Applications

- **Suitable Applications:** Topcoat for truck bodies, trailers, and special commercial vehicles.
- **Industrial Use:** Protective and decorative topcoat for steel structures, machinery, tank exteriors, pipelines, and other general industrial surfaces.
- **Compatibility:** Can be used in combination with waterborne epoxy primers and waterborne anti-corrosion primers.

3. Key Performance Features

- **Low Odor & Eco-friendly:** Uses water as a thinner, with very low VOC content; minimal odor during application and drying.
- **Weather Resistance:** Coating resists UV aging; maintains gloss and color outdoors for approximately 2–3 years.
- **High Gloss:** Smooth, full-bodied film with excellent decorative appearance.
- **Fast Air-dry:** Quick surface drying at ambient temperature, reducing overall application time.
- **Easy Application:** Viscosity adjustable with water; tools are easy to clean.

Technical Parameters:

Item	Specification	Test Standard / Method
Color	Various (adjustable)	Visual comparison
Gloss (60°)	≥80 GU	ASTM D523
Volume Solids	55% ± 2%	ISO 3233
Density	Approx. 1.15 kg/L	ASTM D1475
Mixing Ratio	Single-component, stir evenly before use	—
Typical Dry Film Thickness	40–60 μm	—
Theoretical Coverage (based on 50 μm dry film)	Approx. 8.5 m ² /kg	—
VOC Content	≤50 g/L	EPA Method 24
Flash Point	Not applicable (water-based)	—
Drying Time (25°C, 50% RH)	Surface dry: ≤1 h; Through dry: ≤8 h; Full cure: 24 h	ASTM D1640
Recoat Interval (25°C)	Minimum: 4 h; Maximum: unlimited (after cleaning the surface)	—

4. Application Instructions

- **Primer:** Waterborne epoxy primer (SX-HY6003) / Waterborne low-odor gray primer (SX-1001) (optional)
- **Topcoat:** This product SX-TRUCK-3000, waterborne topcoat specifically for truck bodies
- **Typical Film Thickness System:** Primer 60–80 µm + Topcoat 40–60 µm (two coats)

5. Surface Preparation

Item	Specific Requirements
Degreasing	Use a dedicated cleaning agent or solvent to thoroughly remove oil, grease, and dust from the substrate surface, then rinse with clean water.
Rust Removal	Abrasive blasting to Sa2.5 (ISO 8501-1), or mechanical tool cleaning to St3.
Surface Condition	Clean, dry, free of oil, loose rust, and dust.
Note	Substrate temperature should be at least 3°C above the dew point and not lower than 5°C.

6. Application Guidelines

Item	Specific Requirements
Mixing	Stir the paint evenly using a mechanical mixer; no curing agent is required. If thinning is needed, use clean water.
Pot Life	Not applicable
Thinner	Clean water
Thinning Ratio (by volume of paint)	Airless spray: 0–5%; Conventional spray: 0–5%; Brush/Roll: 0–5%
Airless Spray	Nozzle size: 0.33–0.43 mm; Pressure: 12–15 MPa
Conventional Spray	Nozzle size: 1.0–1.5 mm; Pressure: 0.3–0.5 MPa
Brush/Roll	Suitable for small area repairs and edges. Ensure uniform application and avoid missed spots.

7. Safety and Precautions

- This product is water-based and non-flammable; however, it is still recommended to store it away from fire sources.
- Ensure good ventilation during application, and it is recommended to wear protective gloves, safety goggles, and a dust mask.
- Avoid direct contact with skin; in case of contact, rinse thoroughly with plenty of clean water.
- Do not mix with organic solvents; strictly prohibit mixing with oil-based paints.
- Application is not recommended when ambient temperature is below 5°C or relative humidity exceeds 85%.
- Use the mixed paint within its pot life.
- Clean tools and equipment immediately with clean water after use.

8. Packaging, Storage and Shelf Life

- **Packaging:** 20 kg per drum (approx. 17.4 L, based on a density of 1.15 kg/L)
- **Storage Conditions:** Store in a cool, dry, and well-ventilated place, away from direct sunlight. Storage temperature: 5–35°C. Protect from freezing.
- **Shelf Life:** 12 months (unopened)

Disclaimer:

All information provided in this Technical Data Sheet is based on our typical test data and experience. Actual performance may vary depending on application conditions, substrate preparation, and application methods. It is recommended to conduct a small-scale trial or consult our technical personnel before use. We reserve the right to modify the technical data without prior notice.

Technical Data Sheet

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