BTX-FREE · FOR AUTOMOTIVE EXTERIOR & INTERIOR PARTS

Ecoplus TFX81

Series

High-Gloss 2-Component Acrylic Urethane Coating (2K)

Sunscreen-resistant grades available



Example ① Ecoplus TFX81-IM2, Black (customer-specific color)



Example ② Ecoplus TFX81, Silver (customer-specific color)

ISO 9001:2015 Certified (Intertek)

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Example ③ Ecoplus TFX81, Silver (customer-specific color)

TX-FREE · FOR AUTOMOTIVE EXTERIOR & INTERIOR PARTS

Ecoplus TFX81 Series

High-Gloss 2-Component Acrylic Urethane Coating (2K)

Product Description

An environmentally considerate, TX-free two-component reactive acrylic urethane that contains no toluene or xylene, solvents with a high environmental load. It offers good gloss, leveling and workability, and can be applied at high film build. It also delivers excellent film performance, including chemical resistance, accelerated weathering resistance (SWOM) and light resistance (FOM).

BTX-Free
No toluene or xylene

1-Coat High Gloss
Good leveling & film build

SWOM 1200 h
Accelerated weathering

FOM 400 h
Gloss retention ≥ 95%

TAIEI INDUSTRIES Co., Ltd.

We are a paint manufacturer specializing in the development and production of metallic paints for OEM automotive exterior and interior parts.

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Series Lineup & Features

Type	Hardener	Adaptable thinner	Mixing ratio	Confirmed substrates	Features
Ecoplus TFX81	Ecohard L-80	YD-319 FPT-MLD#7	Base / Hardener / Thinner = 8 / 1 / 5–6	ABS, PC/ABS	Suitable for top coat 1-coat high gloss Low viscosity; for exterior
Ecoplus TFX81-IM2	Ecohard SHG-80	FPT-MLD#7 FPT-MLD#98 FPT-2SK#78	Base / Hardener / Thinner = 8 / 1 / 5–6	ABS, PC/ABS	Drying performance **Sunscreen-resistant** 1-coat high gloss Interior & exterior
Ecoplus TFX81-IM3	Ecohard A-80	FPT-MLD#7 FPT-MLD#98 FPT-2SK#78	Base / Hardener / Thinner = 8 / 1 / 5–6	ABS, PC/ABS, PPE+PA6 SUS304, SUS430	Wide range of substrates 1-coat high gloss Interior & exterior

Painting Specification

Item	Conditions
Mixing ratio (by weight)	**80 / 10 / 50–60** Paint / Hardener / Thinner Varies by color and hardener type
Pot life (after mixing)	**6–8 hours**
Paint viscosity (diluted)	**11 ± 2 sec** Anest Iwata NK-2 cup, 23°C Varies by color
Atomizing air pressure (spray gun)	**0.2–0.3 MPa**
Standard film thickness	**20–30 µm**
Standard drying condition	**80°C × 30 min**

Note
Sunscreen-resistance test results are for Ecoplus TFX81-IM2 and Ecoplus TFX81-IM3.

Paint Film Performance

Test item	Test method	Result
Film hardness	Mitsubishi Hi-Uni pencil	**F**
Initial adhesion	1.0 mm cross-cut, adhesive tape peel	**100/100**
Impact resistance	DuPont impact tester, 2.9 N (300 gf), 20 cm or more	**PASS**
Tack resistance	Gauze, 70°C × 2 h, 500 gf, ⌀40 mm	**PASS**
Adhesion after humidity exposure	50°C, 98% RH, 240 h, then adhesion test	**100/100**
Water discoloration resistance	5 ml distilled water dropped inside a ring sealed to the test surface; 55°C × 4 h	**ΔE* ≤ 0.8**
Alkali resistance	5 ml NaOH (0.1 N) dropped inside a ring sealed to the test surface; 55°C × 4 h	**ΔE* ≤ 1.5**
Acid resistance	5 ml H_2SO_4 (0.1 N) dropped inside a ring sealed to the test surface; 23°C × 24 h	**ΔE* ≤ 1.5**
Volatile oil resistance	Immersed in No. 1 volatile oil at room temperature (20°C) for 3 h	**PASS**
Dry rubbing fastness	Gakushin-type rubbing tester, 5 layers of gauze, 500 g load × 200 cycles	**PASS** No substrate exposure
Alcohol-based hair liquid resistance	Hair liquid (1 g/100 cm²), 80°C × 168 h, then abrasion test (2 kg × 200 cycles)	**PASS** No substrate exposure
Beef tallow resistance	Beef tallow (2 g/100 cm²), 80°C × 168 h, then abrasion test (2 kg × 200 cycles)	**PASS** No substrate exposure
Sunscreen resistance*	Sunscreen cream (0.5 g/100 cm²), 55°C × 4 h, then abrasion test (2 kg × 200 cycles)	**PASS** No substrate exposure
Light resistance	FOM (fade meter), 400 h	**Gloss retention ≥ 95%** **ΔE* ≤ 3.0**
Accelerated weathering	SWOM (sunshine weather meter), 1200 h	**Gloss retention ≥ 90%** **ΔE* ≤ 3.0**

* Sunscreen resistance results are for TFX81-IM2 / TFX81-IM3.