BTX-FREE · FOR AUTOMOTIVE EXTERIOR & INTERIOR PARTS

Ecoplus SMP41

2-Component Modified Acrylic Self-Healing Coating (2K)

High recovery from scratches

ISO 9001:2015 Certified (Intertek)

TAIEI INDUSTRIES Co.,Ltd. TECHNO PAINT CHEMICALS SECT.



Image ① Scratches recovering

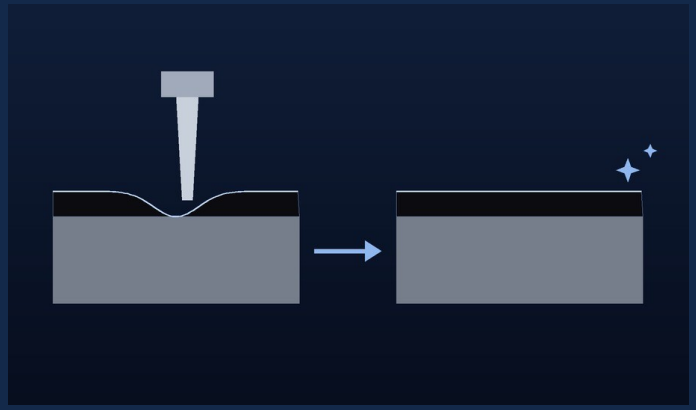


Image ② Elastic recovery of the film

Illustration only (not an actual product photo)

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Ecoplus SMP41

2-Component Modified Acrylic Self-Healing Coating (2K)

Product Description

A BTX-free, environmentally conscious two-component reactive modified acrylic self-healing coating that contains no toluene, xylene or ethylbenzene. The highly elastic film recovers well from scratches, and offers good resin-like gloss, leveling, film build and workability. It also provides excellent chemical resistance, accelerated weathering resistance (SWOM) and light resistance (FOM), and delivers high gloss and a deep jet-black finish in a single coat.

BTX-Free
No toluene or xylene

Self-Healing
High recovery from scratches

1-Coat High Gloss
Deep jet black also possible

SWOM 1000 h
Gloss retention ≥ 90%

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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Painting Specification

Item	Conditions
Mixing ratio (by weight)	40 / 10 / 20–30 Paint / Hardener / Thinner Varies by color and hardener type
Pot life (after mixing)	5 hours (23°C)
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

Recommended System

Item	Details
Substrates	ABS, PC/ABS
Hardener	Ecohard SHG-80 Standard type (high solids)
Thinner	Standard volatility: YD-319 Slow volatility: YD-319-S
Mixing ratio by hardener	Ecohard SHG-80: 40 / 10 / 20–30 The ratio may vary slightly by color

Paint Film Performance

Test item	Test method	Result
Film hardness	Mitsubishi Hi-Uni pencil	**B–HB**
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 (0.5 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), 1000 h	**Gloss retention ≥ 90%** **ΔE* ≤ 3.0**