FOR POLYAMIDE (NYLON) PLASTICS

Polyrap No.1

2-Component Reactive Acrylic Urethane Coating (2K) for Automotive Interior & Exterior

Excellent adhesion to PA6, PA66 and PA12

ISO 9001:2015 Certified (Intertek)
TAIEI INDUSTRIES Co.,Ltd. TECHNO PAINT CHEMICALS SECT.



Example ① Polyrap No.1, Silver (customer-specific color)



Example ② Polyrap No.1, Silver (customer-specific color)

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Product Description

A coating with a long track record on polyamide resin moldings for automotive exterior and interior parts, offering good workability and excellent film performance. It adheres excellently to PA6, PA66, PA12 (including amorphous types) and PA with glass fiber (up to 40%). It also provides good secondary workability (good compatibility with hot stamping) and is mainly used for metallic colors.

PA6 · PA66 · PA12
Including amorphous types

PA + GF up to 40%
Glass-fiber reinforced grades

Hot Stamping
Good secondary workability

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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Painting Specification

Item	Conditions
Mixing ratio (by weight)	100 / 10 / 30–60 Paint / Hardener / Thinner Varies by color and hardener type
Pot life (after mixing)	8 hours
Paint viscosity (diluted)	10–14 sec Anest Iwata NK-2 cup, 23°C Varies by color
Atomizing air pressure (spray gun)	0.2–0.3 MPa
Standard film thickness	15–25 µm
Standard drying condition	80°C × 30 min

Recommended System

Item	Details
Substrates	ABS, PC/ABS, PPO, PPE, GT-X (PPE+PA) PA6, PA66, PA12, PA6+GF, PA66+GF
Hardener	Polyrap G41 hardener
Thinner	High volatility: 1019 W Standard volatility: 1019 Slow volatility: 1019-SS
Mixing ratio	100 / 10 / 30–60 (Paint / Hardener / Thinner) The ratio may vary slightly by color

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
Light resistance	FOM (fade meter), 400 h	**Gloss retention ≥ 95%** **ΔE* ≤ 3.0**
Accelerated weathering	SWOM (sunshine weather meter), 1000 h	**Gloss retention ≥ 85%** **ΔE* ≤ 3.0**