Functional Paint
Conductive Paint

ELE-EARTH EAU Type

(Air Dry)

Composition

ELE-EARTH EAU Type is a a two-package type (base and curing agent) conductive paint that consists of acrylic urethane resin, pigments, conductive fillers, and special additives.

Functionality

(1) Can be air or forced dried.
(2) Best suited for large metal products which cannot be baked.
(3) High hardness and superior resistance to abrasion.
(4) Excellent resistance to oil and water.
(5) Excellent, long-lasting antistatic performance.
(6) High whiteness properties for long-lasting, brilliant color results.
(7) No toxic pigments (i.e. lead, chromium, etc.) used.

Use and Application

Read the following instructions to ensure the best film performance:

(1) Stir and shake well before use to mix conductive fillers in the base.
(2) Use 8 parts of base to 1 part of curing agent for mixing.
(3) Thin up to 20-30% by weight with *Thinner 4000*. Do not use other thinner.
(4) Thinners allow paint to settle quickly; stir the paint well and spray coat at a thickness of 30-40μm for drying.
(5) Drying Time (at 20℃): set-to-touch (10-15 minutes); dry-hard (8 hours); complete-dry (7 days) ; and forced dried (at 60℃X30~80℃X20 minutes)
※Dry the paint at least for three days to ensure the best resistivity.

Intended Use

Antistatic treatment for molded plastics, semiconductor facility, large metal products, etc.

Precautions

(1) Use the paint within its pot life (5 hours at 20℃) after mixing with curing agent.
(2) Keep the curing agent in an airtight container and store it in a cool, dry, and dark space.
(3) In case of skin contact, wipe off with a special thinner and wash with soap. (The paint contains almost no residual free isocyanate.)
(4) Remove all grease and water from the substrate.
(5) Primer is available by order.
(6) Some variations in color and gloss are available by order.
(7) Use the color paint within three months.
(8) See the SDS for more information.

Film Performance

Test Item	Test Condition	Result
Pencil Hardness	Film hardness tester using Mitsubishi UNI pencils	2H
Adhesion	SPCC-SD steel plate	100/100
	Aluminum plate 1050P (polished)	100/100
	ABS plate	100/100
Bend Test	10mm, 180°/1sec, Bend	Pass
Chip Resistance	Dupont impact tester: 500g, 1/2 inch, 40cm	Pass
Water Resistance	Immersed in tap water at 40℃for 24 hours	OK
Oil Resistance	Immersed in spindle oil at 60℃for 6 hours	OK
Viscosity Resistance	The two 5-hour dried coated films were put together face to face under a load of 1kg for 24 hours.	OK
Solvent Resistance	Fixed-force (500g) rubbings (50 times) with methanol	Pass
Abrasion Resistance	Taber abrasion tester: CS-17, 1Kg, 500 cycles	< 100mg
Salt Spray Test	Spray 5% NaCl solution at 35℃, 98% humidity, for 72 hours.	2mm
Conductivity Test	(JIS L 6911) surface resistivity (Ω-cm)	$< 10^8 Ω$

✴ Tests were conducted in accordance with JIS.K-5600.
✴ SPCC-SD steel plates were used in the physical property tests.
✴ Conductivity was measured with a resistance meter on an ABS plate with spray-coated film at a thickness of 35μm and air-dried for 72 hours (by the company's test procedures).

Volume

ELE-EARTH EAU (Light-colored possible)
18kg (Base Resin: 16kg, Curing Agent: 1kgX2can)
Thinner 4000 S(Summer Type) SW(Spring&Autumn Type) W(Winner Type) 16L