

Ultra-scratch resistance 1K acrylic resin paint for metals

ARMOR TOP

(AT20- series)

Introduction

Conventionally developed plastics have been improved even lighter, easily designed materials which lead metallic or wooden materials to be replaced over its advantage of easily mass produced. However, metals such as magnesium alloy has drastically developing its molding technic recently, and its lightness, hardness, conductivity, and recyclable feature leading some of plastics to be replaced by it. Especially molded magnesium alloy is used for portable products such as cellular phone, laptop and cameras.

To meet the demand, this product, "ARMOR TOP" is 1K curable hard coating paint for metal is able to perform high hardness, scratch resistance which was believed only for UV curable paint to be able to do and it also could be dried by baking.

Features

1. The coat of High hardness.
2. Scratch resistance bears steel wool.
3. Weatherability, Staining resistance, Solvent resistance.
4. There is almost no bad smell at the time of dryness with a coat and a baking.
5. Recoatability.

Product code

AT20- ARMOR TOP various color

Recommended thinner

Z-2251 ARMOR TOP THINNER (quick-dry)
 Z-2253 ARMOR TOP THINNER (moderate)
 Z-2256 ARMOR TOP THINNER (slow-dry)

Applicable substrates

855- series (1K drying primer paint)
 Applicable substrates for 855- series
 Conversion treatment finishing Magnesium alloy (AZ91D)
 SPCC-SB Polished steel plate,
 SPCC-SB Zinc phosphate treated steel plate,
 Aluminum (A1050P), Aluminum alloy (A5052P),
 Stainless steel (SUS-304),
 Galvanized iron plate, Brass, Nickel chrome plating

Precautions

1. Please clean the surface of substrate before spraying as poor adhesion and cissing may be caused by contaminants, such as release agents on the substrate.
2. Please use the recommended thinner as it may cause physical characteristic deterioration of paint depending on the type of solvent.
3. Test adhesion, solvent resistance of the substrate, and curability etc. before usage. Variety of substrates in the market may result differently, so please test actual property.
4. Please stir evenly before usage. When spraying, please stir and pour the mixed paint into the stirring tank and stir while spraying.
5. Avoid direct sunlight and store the paint in a cool and dark place (-20°C to 40°C).
6. Please refer to SDS etc. for other precautions.

Please contact below for any enquiry upon this paint

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Standard spray specifications		
Test content		Spec
Mixing ratio Paint: Thinner (by weight)		100:60±10
Spraying viscosity(IWATA VISCOMETER NK-2 at 20°C)		12.5±2.5sec
Spraying method	Orifice diameter	1.3±0.3mm ϕ
	Spray gun pressure	0.3±0.1MPa
Spraying distance		25±5cm
Drying condition	Flash off	25°C × 10min
	Drying	160°C × 20min
DFT		15±5 μ m

■ Film performance

Test item	Test conditions	Result
Adhesion	1mm Cross Hatch Adhesion Test (10x10)	100/100
Hardness	Mitsubishi pencil UNI 1kg of load	6H
Eraser abrasion resistance	Sony eraser testing equipment, 1.64kgf, 300rounds	Pass
Alcohol resistance	99.5%ethanol rubbing, 500g/cm ² , 100rounds	Pass
Acid resistance	0.1N H ₂ SO ₄ , 5cc, 25°C × 24h	Pass
Alkali resistance	0.1N NaOH, 5cc, 25°C × 24hr	Pass
Thermal resistance	1mm cross-cut adhesion test after 85°C × 96hr	100/100
Humidity resistance	1mm cross-cut adhesion test after 50°C × 98%RH × 120hr	100/100
Heat cycle resistance	1mm cross-cut adhesion test after 10 cycles of -30°C × 1hr ⇄ 60°C × 3hr	100/100
Weatherability	Sunshine weather meter, 300h, within $\angle$ E=1.0	Pass
Spraying condition	Substrate SPCC-SB Zinc phosphate processing steel plate AT20- ARMOR TOP Metallic silver Paint: Thinner(Z-2253)=100:60(by weight) Flash off 25°C × 10min Drying 160°C × 20min (Start testing after expose for 1 day in room temperature)) DFT 15±1 μ m	

*The listed property value is an example of our test results and does not indicate standard value. Please consider thoroughly before purchasing.

*Please be informed that for product improvement purposes, information may change without prior notices.