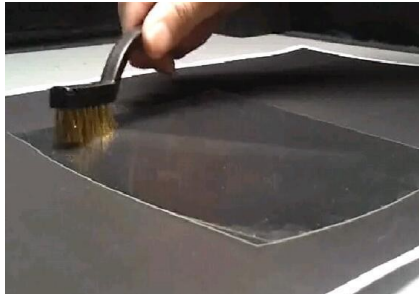


Hard to crack even bending it! Top coating agents having excellent moldability !

Self-healing Paint

Self-healing paint products are functional coating agents developed using our unique *urethane acrylate synthesizing* and *paint formulation technologies*.



a few
seconds
later



Features

- The product features a clear coat and instantly repairs any slight scuffs or scratches.
- It yields a flexible film and is less likely to exhibit cracking or flaking. It is suitable as the topcoat on curved surfaces and flexible parts
- This product has an extensive lineup.
Anti-stain type, Solvent-free type, Heat-curable, etc.
A matte type is now available.
- Tokushiki's self-healing paint products can be freely customized to meet different requirements.

Product Lineup

Product number	Curing type	Description
AUP-727	UV-curable	Standard type; quickly healing. Elongation over 100%!
AUP-828		Solvent-free type; suitable for film coating
AUP-838C		Anti-stain type; repels permanent marker
NEW! AUP-848M		Matte type; makes fingerprints less visible
AUP-818	Heat-curable (two parts)	Light-resistant and solvent-resistant type

- ※ Self-healing Paint, there is the effect of hard to scratches, but it does not completely prevent abrasion.
- ※ It does not repair coating film that was broken once and deep scratches such as a cutter.
- ※ Repair speed varies with the temperature of the substrate.

UV-curable Self-healing Paint

AUP-727 / AUP-828 / AUP-838C / AUP-848M

Abrasion of brass brush repair instantly!
The product makes fingerprints less visible! It is likely to have less cracking!
A matte type is now available.

Features

- The product features a clear coat and instantly repairs any slight scuffs or scratches.
- It yields a flexible film and is less likely to exhibit cracking or flaking. It is suitable as the topcoat on curved surfaces and flexible parts.
- For UV curing type, it is energy-saving products that can be cured at a low temperature in a short time than the heat curing.
- It can also be applied to less heat-resistant base materials.
- Because there is no need for a drying process, the coated surfaces can be exposed to UV radiation shortly after coating is finished. (AUP-828 Solvent-free type)
- It repels permanent marker, and any marker stains can be easily removed. (AUP-838C Anti-stain type)
- It gives a matte finish, making fingerprints less visible. (AUP-848M Matte type)

Applications

- Flat panel display film, touch panel film.
- Plastic molded products such as smartphone case.

Paint properties

Product number	AUP-727	AUP-828 Solvent-free type	AUP-838C Anti-stain type	AUP-848M Matte type
Resin system	Urethane	Urethane	Urethane	Urethane
Paint type	Clear gloss	Clear gloss	Clear gloss	Matte
Viscosity [mPa·s / 25°C]	200 ~ 600	150~450	20 ~ 100	100 ~ 500
Non Volatile Matters[wt%]	30	100	50	44
Solvent	Methyl ethyl ketone (MEK)	-	Methyl ethyl ketone (MEK)	Methyl ethyl ketone(MEK) / Methyl isobutyl ketone(MIBK) /1-Methoxy-2-Propanol

NEW

Coating film properties ※Film Thickness: 30μm / Material base: easy adhesion PET

Test item		AUP – 727	AUP-828 Solvent-free type	AUP-838C Anti-stain type	AUP-848M Matte type
Appearance	Visual observation	Colorless and transparent	Colorless and transparent	Colorless and transparent	White
Transmittance	JIS K 7105	90.2	90.2	90.2	-
Haze		0.2	0.2	0.2	72.5
Gloss		-	-	-	13
Adhesion	Cross cut adhesion test	100/100	100/100	100/100	100/100 ※ ¹
Repair endurance	1kg force 150 strokes (Brass brush 2cm×1cm)	No scratch	No scratch	No scratch	No scratch ※ ²
Hardness	JIS K 5600-5-4 750g force	HB	HB	HB	F
Elongation	50μm room temperature	130%	20%	15%	40%
Water resistance	40°C × 96h	No change	No change	No change	No change
Acid resistance	10% HCl aq immersion 96h	No change	No change	No change	No change
	10% H ₂ SO ₄ aq immersion 96h	No change	No change	No change	No change
Solvent resistance	MEK, ethanol rubbing 50 strokes	No peeling	No peeling	No peeling	No peeling

※¹ AUP-848M; Poly Carbonate base ※² AUP-848M; 750g force 100 strokes

※ Self-healing Paint, there is the effect of hard to scratches, but it does not completely prevent abrasion.

※ It does not repair coating film that was broken once and deep scratches such as a cutter.

※ Repair speed varies with the temperature of the substrate.

How to use

1. Setting, Pretreatment

- Please note a degreasing and dust during coating process.
- If not in close contact with the substrate, please corona-treated.
- If you want to adjust the gloss of the AUP-848M, please adjusted using a gloss-adjusting agent (AUP-849).
- After coating, before UV irradiation, please dry a solvent.(80°C×3min except AUP-828)

2. Curing conditions

- 80W high pressure mercury lamp / integral light counte 500mJ/cm²

Contact us

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※ Listed values are Not specified values, are representative values. The data presented here should not be considered guaranteed performance at the time of use. Please use on the check by yourself that you intend to use.

Heat-curable Self-restoring Paint

AUP - 818

Light-fast and chemical-resistant type

Features

- The product features a clear coat and instantly repairs any slight scuffs or scratches.
- It yields a flexible film and is less likely to exhibit cracking or flaking. It is suitable as the topcoat on curved surfaces and flexible parts.
- It is light-fast and chemical resistant.

Applications

- Flat panel display film, touch panel film.
- Plastic molded products such as smartphone case.

Paint properties	
Product number	AUP-818
Resin system	Urethane
Appearance	Light yellow transparent liquid
Viscosity [mPa·s / 25°C]	400 ~ 800
Non Volatile Matters [wt%]	50
Hydroxyl Value (mgKOH/g)	65
Solvent	Methyl ethyl ketone(MEK), Butyl acetate

Coating film properties ※Film Thickness: 30μm / Material base: easy adhesion PET		
Test item		AUP -818
Appearance	Visual observation	Colorless and transparent
Transmittance	JIS K 7105	92.0
Haze		0.2
Adhesion	Cross cut adhesion test, cutting distance 1 mm	100 / 100
Repair endurance	1kg force 150 strokes (Brass brush 2cm×1cm)	No scratch
Hardness	JIS K 5600-5-4 (750g force)	HB
Water resistance	40°C ×96h	No change
Acid resistance	10% HCl aq immersion 96h	No change
	10% H ₂ SO ₄ aq immersion 96h	No change
Base resistance	1% NaOH aq immersion 96h	No change
Solvent resistance	Methyl ethyl ketone, ethanol rubbing 50 strokes	No change
Light resistance	Xenon lamp 300h	ΔE = 0.14

- ※ Self-restoring Paint, there is the effect of hard to scratches, but it does not completely prevent abrasion.
- ※ It does not repair coating film that was broken once and deep scratches such as a cutter.
- ※ Repair speed varies with the temperature of the substrate.

How to use

1. Setting, Pretreatment

- Please note a degreasing and dust during coating process.
- If not in close contact with the substrate, please corona-treated.
- After coating, please dry a solvent. (80°C×3min)

2. Coating formulation

- AUP-818 / Curing agent (UAX-700※) / Tinner = 100 : 20 : 110 (Non Volatile Matters 30%)
- ※UAX-700 : Isocyanulate type polyisocyanate (NCO%: 23%)

3. Curing conditions

- 80°C × 1h

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