

# Photo-Curable Adhesive

## ARONIX® UVX-6420

### Features

- ① Solvent-free and low viscosity
- ② Good adhesion to various substrates
- ③ Useful for optical applications because of colorless transparency
- ④ Curable even by UV irradiation through UV absorbing substrates
- ⑤ Low Water absorption due to the hydrophobicity

Product Name	Viscosity	180° Peel Strength(N/inch) <sup>1)</sup>						Tg (°C)
	mPa·s (25°C)	PET	PMMA	PC	TAC	Poly-imide	Glass	
UVX-6420	163	16	22	22	22	19	14	18

**\*Water Absorption of Cured Resin : 1.7%**

Water absorption =  $(W_2 - W_1) / W_1 \times 100(\%)$

$W_1$  : initial weight after drying for 24h at 50°C,  $W_2$  : weight after soaking in water for 24h at 23°C

1)Sample structure: PET(Adhesive Type)/**UV Curable Adhesives(10-15µm)**/ Various Substrates

PET(Adhesive Type): COSOMOSHINE® A4300 (TOYOBO, 50 µm)

Various Substrates

PET	: LUMIRROR® T-60	(TORAY, 50 µm, Non-Adhesive Type)
PMMA	: ACRYLITE®#001	(MITSUBISHI RAYON, 1mm)
PC	: IUPILON® NF-2000	(MITSUBISHI ENGINEERING-PLASTICS, 1mm)
TAC	: FUJITAC® TD 80UL	(FUJIFILM, 80 µm)
Polyimide	: KAPTON® 100EN	(DU PONT-TORAY, 25 µm)
Glass	: FLOAT GLASS	(NIPPON SHEET GLASS, 3mm)

Photo Curing Conditions: Metal Halide, 160W/cm, 1,000mJ/cm<sup>2</sup>(UV-A)

180° Peel Strength: 23°C, 200mm/min.

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# UV Conformal Coating

## ARONIX<sup>®</sup> UVX-6754

### Features

- ① This is a Non-solvent UV curable conformal coating with good FPC adhesion.
- ② This is suitable for protecting electrode terminals and electronic circuit boards.
- ③ Since the transparency of the resin is high, you can check the corrosion state of the electrode through the resin.

		UVX-6754
Viscosity (77 deg. F)		2,500~8,000 mPa·s
Tg (1 Hz)		75.2 deg. F
Adhesive strength	Polyimide *180 deg. Peel Strength	13.2 N/in.
	Glass *Bonding Strength	1,890 N/sq. in.
Water absorption (104 deg. F, 24hours)		1.8%
Moisture permeability (104 deg. F, 90%RH, Thickness=2mm)		1.25 g/sq. ft. ·24hours
Electric resistance during moisture test (104 deg. F, 80%RH, 1,000 hours, 80V, L/S=50 μm(Ag)/50 μm(Glass) )		OK

Polyimide : KAPTON<sup>®</sup> 100EN (DU PONT-TORAY, 25μm)  
 Glass : FLOAT GLASS (NIPPON SHEET GLASS, 3mm)  
 Photo Curing Conditions : Metal Halide, UV exposure dose = 1J/cm<sup>2</sup>(UV-A)  
 180 deg. Peel Strength : 1.97 inch/min., 73.4deg. F, 50%RH  
 Bonding Strength : 1.97 inch/min., r.t.

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# Hard coating agent

## ARONIX<sup>®</sup> UVX-6524, 6392

### Features

- Low viscosity and hard coat resistance than conventional non-solvent hard coating agent.

### Example of applications

- Nanoimprint, UV curing hard coat for spray/inkjet printing

Grade		UVX-6524	UVX-6392
Features		Low viscosity	High Hardness
Viscosity (mPa·s, 25°C)		<b>40</b>	<b>56</b>
Refractive index ( $n_D^{25}$ )	Before curing	1.484	1.479
	After curing	1.524	1.509
Pencil Hardness JIS K5600, 750gf	PET	3H	<b>4H</b>
	PC	F	F
	TAC	3H	3H
	PMMA	3H	<b>4H</b>
Adhesion JIS K5600	PET	Good	Good
	PC	Good	Good
	TAC	Good	Good
	PMMA	Good	Good(Corona treatment)
Scratch Resistance		<b>OK</b>	<b>OK</b>

\*Release film / UVX(t=10μm) / Substrate film, \*Metal-halide lamp, 250mW/cm<sup>2</sup>, 1,000mJ/cm<sup>2</sup> (at 365nm)

\*Substrate PET: COSMOSHINE<sup>®</sup> A4300 (TOYOBO, 100μm), PC : TEIJIN PANLITE<sup>®</sup>PC-2151(125μm)  
TAC: FUJITAC<sup>®</sup>TD80UL (80μm), PMMA: KURARAY KURARITY<sup>®</sup>HI-50-75 (75μm)

\*Scratch Resistance : Steel Wool: #0000, 500gf × 100cycles、Substrate =PET

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