

VAR Ink series

(Gloss ink for Acrylic, Rigid PVC, ABS, and PC)

VAR Ink is evaporation drying gloss-type screen inks with excellent adhesion and solvent resistance to plastics such as acrylic sheets and rigid PVC. It is highly resistance ink used for screen printing on outdoor signage, instrument panels for automobiles and home appliances and various display boards.

Applications	Outdoor signage, instrument panels for automobile and home appliances, and various display boards.
Special Features	<ul style="list-style-type: none"> • Excellent adhesion is obtained when G type dilution solvent is used for the following various materials. • It has particularly excellent surface hardness and is not easily scratched. • Excellent alcohol resistance and solvent resistance to common thinners. • Superior resistance to molding of various shapes and capable of vacuum molding. • Standard colors with excellent weather resistance are available. Also suitable for outdoor signages, please consult us separately.
Substrate	Acrylic, Rigid and soft PVC, ABS, Polycarbonate
Dilution	G-001 SOLVENT (fast) G-002 SOLVENT (standard) G-003 SOLVENT (slow) G-004 SOLVENT (extra slow) Dilution: 15 to 20% *Do not use other solvents as they may adversely affect curing, adhesion, stencil stability, or other properties.
Additives	SM-40 DEFOAMER 2% (For anti-foam and improvement in leveling)
Recommended Cleaner	Screen Cleaner L2 or G-002 SOLVENT
Mesh	T 150 to 300 mesh (Coverage is 20 to 28m ² /kg at 250 mesh)
Drying	Each layer 60°C 10 min Final layer 60°C–80°C 60 min

Standard Colors	000 MEDIUM	182 RED	611 WHITE
	001 VICTORIA	190 BRILLIANT RED	611 C OPAQUE WHITE
	002 EXTENDER	191 RED	675 SPECIAL OPAQUE WHITE
	003 BRIGHT RED	221 YELLOW	797 GREEN
	033 GEL RETARDER	263 REDDISH YELLOW	821 VIOLET
	121 SCARLET	271 OPAQUE LIGHT YELLOW	911 BLACK
	161 SCARLET	277 OPAQUE REDDISH YELLOW	912 BLACK
	163 RED	391 BLUE	911C OPAQUE BLACK
	166 RED	525 ORANGE	052TC YELLOW
	171 CRIMSON	577 OPAQUE ORANGE	135TC MAGENTA
	177 OPAQUE RED	581 MAGENTA	215TC CYAN D
			915TC BLACK

SLOW COMPOUND	TYPE	Slow type compound improves ink flow through the mesh and prevents ink sagging, resulting in improved printability. Therefore, it is effective for printing on fine lines, metallic colors, and transparent colors. To use, reduce the amount of diluting solvent and mix 10 to 20% of the slow type compound into the ink.
Caution		<ul style="list-style-type: none"> Adhesion test must be done before printing as quality of plastic may differ depending on manufacturers or lots. It is also recommended to wipe surface of the printing part with alcohol or mineral spirits to prevent defective print due to static electricity and insufficient adhesion due to plasticizer and additive floating. The can tends to rust due to moisture. Please use as soon as possible after opening. Checking before production: Adhesion and resistance properties may change due to differences in substrates, processes, printing and drying conditions. Be sure to check the adhesiveness and resistance properties before mass production printing Ink shelf life: 24 months from production date, unopened.
Safety		UN No.: 1210 UN Classification: Class 3 Flammable Liquids (Flash point is over 23 Degree C)
Handling		<ul style="list-style-type: none"> Use safety gloves and eyeglasses to protect skin and eyes. If the ink comes in contact with skin, wash with soap and plenty of water (or lukewarm water) and consult with a doctor. Containers should be closed tightly after use and stored in a cool and dark place. SDS is available upon request. Please request a copy and read it carefully before handling the products.

Resistance

Test item	Test Conditions	Test results
Adhesion	JIS K 5600-5-6:ISO2409(cross-cut)、1mm interval 6×6, cellophane tape and peel	0(no peel)
Pencil Hardness	JIS K 5600-5-4:ISO 15184(pencil), Weight 750g, Hardness of pencil which does not make scar.	3H
Heat	JISK5600-6-3:ISO 3248: 150°C、2 hrs., check appearance and peel off from the substrate	No defect
Hot water	JIS K 5600-6-2: ISO 2812-2, Soak 24 hrs. in 60°C hot water, check appearance and peel off	No defect
Acid	Soak 24 hrs. in 5% H ₂ SO ₄ , check appearance	No defect
Alkaline	Soak 24 hrs. in 5% NaOH, check appearance	No defect
Alcohol	Gakushin scrub tester, cotton soaked ethyl alcohol, weight 500g, 300 back and forth, check peel off	No defect
Oil	Gakushin scrub tester, cotton soaked engine oil, weight 500g, 300 back and forth, check peel off	No defect
Solvent	Gakushin scrub tester. Cotton soaked MIBK, weight 500g, 20 back and forth, check peel off	No defect
Gasoline	Gakushin scrub tester. Cotton soaked High octane gasoline, weight 500g, 20 back and forth, check peel off	No defect
Scrub	Gakushin scrub tester, cotton, weight 500g, 300 back and forth, check color fade	No defect
Vacuum forming	Check cracks after forming by vacuum forming machine	No defect
Accelerated weathering	JIS K 5600-7-7 ISO 11341 Radiant energy 60W/m ² , BP Temp.63±3°C, Raining rate 18 min/120min, check color fade	(800-2000hrs) No defect

*Test conditions 【VAR- 675 Special Opaque White, For formability, 391 Blue, 611 White】 【T 250】
 【G-002 Solvent 20%】 【Substrate: SHINKOLITE™ (Acrylic Sheet)E(extrusion)】
 【60°C 30 min】

*Above test was conducted after leaving above printed materials for 24 hours at a room temperature.

*Above resistance test results are measured results in our laboratory and they are not guaranteed values.

*Information contained in this catalog may change without prior notice.

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