

XFM Ink series

(1 pack type, High Definition ink for Forming)

High Quality and High Definition screen printing ink is the ink which reproduce solid printing and fine line pattern faithfully and enables stable printing of 100µm width fine line with quite high accuracy. XFM ink is suitable for heat foaming applications as is suitable for printing fine lines or characters on name plate, etc., and provides printed ink layer with excellent flexibility at post-processing.

Applications	Instrument panel for automobile and home appliance Display boards		
Special Features	<ul style="list-style-type: none"> • Enables extremely high precision printing such as 100µm width fine line and dot, etc. • Excellent printing stability and high-speed printing printability. • Excellent vacuum foaming resistance • Capable of producing printed materials with excellent adhesion to polycarbonate. 		
Substrate	Polycarbonate, Acrylic, Soft & Rigid PVC		
Dilution	XZ-705 SOLVENT DILUTION: 0 to 5% *Do not use other solvents as they may adversely affect curing, adhesion, stencil stability, or other properties.		
Additives	XSM-40 DEFOAMER 1% (For anti-foam and improvement in leveling)		
Recommended Cleaner	Screen Cleaner L2		
Mesh	L 355 Mesh (Coverage of 971 Black is about 80m ² /kg at L-355 mesh) *Recommendation: L-screen 355 mesh made by NBC Meshtech *T 350 mesh can also be used for printing		
Drying	80°C 30 min * Insufficient drying may cause blocking, please dry thoroughly.	<u>Overprint</u> Each layer Final layer	80°C 10 min(tack-free) 80°C 30 min
Standard Colors	001 VICTORIA 168 SCARLET 182 RED 240 LIGHT YELLOW 277 REDDISH YELLOW 391 BLUE	526 ORANGE 581 MAGENTA 671 WHITE 797 GREEN 821 VIOLET 971 BLACK	052TC YELLOW 135TC MAGENTA 215TC CYAN 915TC BLACK

Caution

- Adhesion test must be done before printing as quality of plastics may differ depending on manufacturers or lots. It is also recommended to wipe surface of the printing part with alcohol to prevent defective print due to static electricity and insufficient adhesion due to plasticizer and additive floating.
- 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.: Not classified in the definition
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Handling

- 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)
Heat	JISK5600-6-3:ISO 3248: 130°C、48 hrs., check appearance and peel off from the substrate	No defect
Hot Water	JIS K 5600-6-2: ISO 2812-2, Soak 48 hrs. in 40°C warm water、check appearance and peel off from the substrate.	No defect
Alcohol	Gakushin scrub tester, cotton soaked ethyl alcohol, weight 200g, 200 back and forth, check peel off	No defect
Scrub	Gakushin scrub tester, cotton, weight 500g, 500 back and forth, check color fade	No defect
Bend test	JIS K5600-5-1: ISO 1519: (Cylindrical Mandrel)2mmφ, check cracks	No defect
Falling-weight test	JIS K5600-5-3 DuPont Impact tester, drop 300g weight from 30cm height.	No defect
Punching	Punching by press machine	No defect
Gloss	Gloss meter(60°/911 Opaque Black)	94.2
Blocking	Weight 10kg/cm ² 40°C, 24 hrs.	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/120 min、1000 hrs. check color fade and peel off	No defect

*Test conditions 【XFM-971 Black】 【80°C 30 min】 【L 355】 【Substrate: PC】

*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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