

## **WIS Ink series** **(Two-pack screen ink for IMD/FIM)**

WIS Ink is two-pack screen ink for IMD/FIM that has a wide range of adhesion to easy adhesion treated PET, etc. Combined with IMB binder, it has excellent heat resistance and adhesion to molded resins during post-processing such as heat press molding and insert molding. It also has excellent re-solubility and is suitable for high speed printing.

Application	Home appliance nameplates, automobile nameplates		
Special Features	<ul style="list-style-type: none"><li>• Suitable for film insert molding with injection resin (PMMA, Acrylic), AS, ABS, PC/ABS, PC, etc., by combining with IMB Binder.</li><li>• No yellowing due to heat at injection molding, forming an ink layer with excellent heat resistance.</li><li>• Excellent re-solubility and is suitable for high-speed printing by cylinder printers.</li><li>• Non-silicon type ink</li></ul>		
Substrate	Easy adhesion treated PET film		
Dilution	G-002 SOLVENT (fast) G-003 SOLVENT (standard) Dilution 10 to 20% *Do not use other solvents as they may adversely affect curing, adhesion, stencil stability, or other properties.		
Catalyst/Promoter mixing	101 Catalyst 10% (standard)	Pot life: 7 to 8 hrs.  *The ink will turn to gel after the pot life has expired. Be sure to mix only enough to use	
Additives	SM-257 DEFOAMER 0.5% to 1.0% (For anti-foam and improvement in leveling)		
Recommended Cleaner	Screen Cleaner L2		
Mesh	T 200 to 270 mesh (Coverage is 30 to 50m <sup>2</sup> /kg at 250 mesh)		
Drying	80°C 30 min	<u>Overprint</u> Each layer 80°C 10 min(tack-free) Final layer 80°C 30 min	
Standard Colors	000 MEDIUM	234 LIGHT YELLOW	611 C OPAQUE WHITE
	001 VICTORIA	277 OPAQUE REDDISH YELLOW	797 GREEN
	168 SCARLET	391 BLUE	821 VIOLET
	178 RED	581 VIOLET	911 BLACK
	182 RED	611 WHITE	

<b>Caution</b>	<ul style="list-style-type: none"> <li>• Be sure to print a binder as an adhesive layer with the molding resin.</li> <li>• When printing a binder, if the underlayer ink is excessively dry, peeling strength will be reduced. Be sure to print continuously up to the binder and conduct final drying.</li> <li>• "IMB-003 BINDER" is recommended for general injection molding resins such as ABS, PMMA, etc. Please refer to the related product information sheet.</li> <li>• In the forming process such as vacuum forming, pressure air forming, and mold forming, as well as in insert molding processes that integrate injection molded resin, a complex set of factors affect the performance of the final product, including the selection of printing materials and inks for design printing, printing conditions, printing sequence, drying method and conditions, selection of molding resin, mold design (gate shape, type and position, number of gates), and conditions set during injection molding.</li> <li>• Preliminary testing under actual conditions is strongly recommended before a commercial run.</li> <li>• Ink shelf life: 36 months from production date, unopened.</li> </ul>
<b>Safety</b>	UN No.: 1210 UN Classification: Class 3 Flammable Liquids (Flash point is over 23 Degree C)
<b>Handling</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Containers should be closed tightly after use and stored in a cool and dark place.</li> <li>• SDS is available upon request. Please request a copy and read it carefully before handling the products.</li> </ul>

## Resistance

### 1. Printed materials

Test item	Test Conditions	Test results
Adhesion	JIS K 5600-5-6:ISO2409 (cross-cut), 1mm interval 6x6, cellophane tape, peel off	0 (no peel)
Pencil Hardness	JIS K 5600-5-4:ISO 15184 (pencil), Weight 750g, Hardness of the pencil which does not make scar	H
Heat	JISK5600-6-3:ISO 3248, 80°C, 200 hrs., check appearance and peel off from the substrate	No defect
Humidity	JIS K 5600-7-2 (Continuous condensation), 40°C, 95%RH, 240 hrs. Check appearance and peel off from the substrate	No defect

\*Test conditions 【WIS-611 WHITE (2 layers)】 【101 Catalyst 10%】 【G-003 SOLVENT 20%】  
【80°C 10 min (interim), 80°C-30 min (final)】 【T 250】  
【Substrate: 0.188 mm Treated PET (Toray Lumirror U35)】

### 2. Molded materials

Test item	Test Conditions	Test results
Heat	JIS K5600-6-3:ISO 3248, 80°C, 200 hrs. check appearance and peel off from the substrate	No defect
Humidity	JIS K 5600-7-2 (Continuous condensation), 65°C, 95%RH, 240 hrs. Check appearance and peel off	No defect
Accelerated weathering (Xenon)	JIS K-5600-7-7:ISO 11341, BP Temp. 63±3°C Raining rate 18 min/120 min, 600 hrs., check color fade and peel off	$\Delta E < 2$ No peel

\*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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