## Teikokulnk Product Information

## **XGL-HF** Ink series

(High Definition ink exclusive for glass)

XGL-HF 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. XGL-HF ink is two pack type screen ink. It has excellent printing stability, adhesion, and resistance, which are essential for glass printing.

Applications	Glass printing for smartphones, tablets, etc.			
Special Features	<ul> <li>Free of halogen (Chlorine CI, Bromine Br) compounds and naphthalene.</li> <li>Excellent stencil stability, suitable for large format printing.</li> <li>A wide variety of colors are available for colorful printed materials.</li> <li>Excellent adhesion to glass and various types of resistance enable a wide range of applications.</li> </ul>			
Substrate	Glass plate			
Dilution	Z-705 SOLVENT (slow) Dilution: 0 to 5% *Do not use other solvents as they may adversely affect curing, adhesion, stencil stability, or other properties.			
Catalyst/Promoter mixing	XGL-HF GLASS PROMOTER 0.5% Pot life: 6 hrs.  (Be sure to add it, otherwise it will not adhere)  *Pot life (usable time) is about 6 hrs. The ink does not turn to gel after 6 hours but adhesion and resistance become inferior. Please mix only enough to use.			
Additives	XSM-40 DEFOAMER less than 1% (For anti-foam and improvement in leveling)			
Recommended Cleaner	Screen Cleaner L2			
Mesh	L 355 Mesh (Coverage of 939 NC Black is about 80m2/kg at L-355 mesh) *Recommendation: L-screen 355 mesh made by NBC Meshtec *T 350 mesh can also be used for printing			
Drying	160°C 30 min * Ensure sufficient drying	<u>Overprint</u> Each layer Final layer	160°C 10 min(tack-free) 160°C 30 min	
Standard Colors	HF001 VICTORIA HF169 SCARLET HF189 RED HF239 LIGHT YELLOW	HF399 BLUE HF529 ORANGE HF589 MAGENTA	HF679 WHITE HF829 VIOLET HF939NC BLACK	

Caution	<ul> <li>Due to the possibilities of contamination with halogen compounds, only designated solvents and catalysts can be used.</li> <li>Please check the squeegee rubber, emulsion, materials and substrates before use, as they may contain halogen compounds.</li> <li>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.</li> <li>Ink shelf life: 12 months from production date, unopened.</li> </ul>
Safety	UN No.: Not classified in the definition UN Classification: Not classified in the definition
Handling	<ul> <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

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)、750g weight, Hardness of the pencil which does not make scar	2 hrs.
Heat	80°C、168 hrs., check appearance and peel off from the substrate	No defect
Hot Water	Soak 72 hrs., in 60°C hot water, check appearance and peel off from the substrate	No defect
Heat and humidity	60℃,95%RH 1000 hrs., check appearance and peel off	No defect
Boiling	Soak 24 hrs. in 98°C boiling water, check appearance and peel off	No defect
Scrub	Gakushin scrub tester, cotton, weight 500g, 1000 back and forth, check color fade	No defect
Accelerated Weathering	(Xenon Lamp) Weather meter, 1000 hrs, BP Temp. 63+/-3°C Raining rate 18 min/120 min,check color fade and pee off	No defect
Accelerated Light fastness	(Carbo arc)Fade meter 1000 hrs., BP Temp.63+/-3°C, check color fade and peel off	No defect

<sup>\*</sup>Test conditions [XGL-HF 939NC Black] [XGL-HF Glass Promoter 0.5%] [160°C 30 min] [L 355] [Substrate: Glass plate]

Created :2022.02.16

<sup>\*</sup>Above resistance test results are measured results in our laboratory and they are not guaranteed values.

<sup>\*</sup>Information contained in this catalog may change without prior notice.