## Tir Teikokulnk Product Information

## UV BUL Ink series (UV Curable Ink)

UV BUL Ink is UV curable screen printing ink designed for label printing of Blu-ray Disc. It is designed to have good adhesion to hard-to-adhere surface like metal treated layer with very little warpage of disc due to its low shrinkage.

Applications	Label printing of Blu-ray DISC, printing on metal treated layer, or inorganic layer substrate				
Special Features	<ul> <li>Superior adhesion to metal treated layer, or inorganic layer.</li> <li>Suitable for printing on Blu-ray DISC due to extremely low shrink ink.</li> <li>Suitable for high speed printing by CD printers.</li> <li>Formed ink layer has high surface hardness and excellent abrasion and alcohol resistance.</li> <li>Low odor, low skin irritation.</li> </ul>				
Substrate	<ul> <li>Label of Blu-ray DISC (Printed surface should be metal treated layer or inorganic)</li> <li>Metal treated layer or inorganic substrate</li> </ul>				
Dilution	Not required (Use RE-804 REDUCER within 5% when required)				
Additives	UV Thixotropic agent: 2% or less (To increase viscosity)				
Recommended Cleaner	<ul> <li>Screen Cleaner L2</li> <li>Applicable for machine cleaning with less hazardous glycol ether types (Glycol ether type cleaning may not be suitable for some types of stencil emulsions, so please be sure to test it beforehand.)</li> </ul>				
Mesh	T 350 mesh (Coverage is 50 to 60m²/kg)				
Drying/Curing	Accumulated energy: about 430mJ/cm²、Illuminance:430mW/cm² (Eye Graphics UV integral light counter) Approximate for disc printers: Tact speed 1.4sec, 140W/cm				
Standard Colors	000 MEDIUM 011 MATT BASE 052 YELLOW	162 SCARLET 277 OPAQUE REDDISH YELLOW 391 BLUE	525 ORANGE 582 MAGENTA 616 WHITE	797 GREEN 821 VIOLET 911 BLACK	

Caution	<ul> <li>Checking adhesion before production: Adhesion may change depend on the substrates, processes, and printing. Be sure to check the adhesiveness before mass producton printing.</li> <li>Ink shelf life: 12 months from shipping date is stable.</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(cross-cut), cellophane tape and peel	0(no peel)
Hot-cold cycling	10 cycles, -20°C(0.5 hrs) $\sim$ 70°C(0.5 hrs), check appearance and peel off	No defect
Water	Soak 30 min in tap water, check appearance and cross-cut peel off	No defect
Humidity	60°C 80%RH 96 hrs. check appearance and peel off	No defect
Alcohol	Abrasion tester, gauze impregnated in 80% ethanol, weight 800g, 15 back and forth (1 round speed/2 sec)	No defect
Detergent	5% neutral detergent, 60°C 24 hrs. check appearance and peel off	No defect
Salt Water	5% Saline solution, 50°C 95%RH 24 hrs., check appearance and peel off	No defect
Artificial Sweat	50°C 95%RH 24 hrs. check appearance and peel off	No defect
Pencil Hardness	Weight 500g, Hardness which does not make scar.	F
Eraser Abrasion	Eraser tester, Weight 500g, 100 back and forth, check appearance	No defect
Tilt Angle	80°C 90%RH 96 hrs. check warpage change of CD prints	Tilt angle less than 0.3

<sup>\*</sup>Test condition [140W/cm 1 Metal halide lamp, Tact speed 1.4 sec.(43pcs/min)] [T 350] [Substrate: Blu-ray DISC]

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<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.