

COS MATT CLEAR(C)

(Scratch-Proof Protection Clear Ink)

COS Matt Clear (C) is a non-glare, semi-matt finish overcoat clear for treated PET, Polycarbonate materials or printed surface.

It has superior anti-scratch properties and eliminates the need for protective lamination during post-process or transportation of the products.

Applications	Design printing and protection for membrane switches, automotive meters, and plastic surfaces	
Special Features	<ul style="list-style-type: none"> • Superior scratch resistance due to the balance of hardness and flexibilities. • By printing on printed surface or substrate, a non-glare finish is achieved. 	
Substrates	PET、 PC	
Dilution	Z-603 SOLVENT 20% (Standard) *If finger drying is slow with the above ratio, use G-002 SOLVENT or G-003 SOLVENT. (Drying speed G-002 SOLVENT > G-003 SOLVENT > Z-603 SOLVENT)	
Catalyst/Promoter mixing	96 Catalyst 3%(Standard)	Pot Life 3 hrs
	*The ink will turn to gel after the pot life has expired. Be sure to mix only enough to use.	
Recommended Cleaner	Screen Cleaner L2	
Mesh	T100 to 225 mesh (Printing coverage would be 30m ² /kg)	
Drying	80°C 30 min, or 100°C 15 min or more is recommended *Drying at temperature below 60°C is not sufficient to perform achieve full performance.	
Standard Colors	COS-100 MATT CLEAR(C) (Full Matt) COS-200 MATT CLEAR(C) (70% Matt) COS-300 MATT CLEAR(C) (30% Matt)	
Caution	<ul style="list-style-type: none"> • Not suitable for outdoor exposure applications. • Adhesion checking before commercialization: Adhesion may vary depending on the substrate, the process, and the printing, be sure to check the adhesion before mass printing. • Ink shelf life: 12 months from production date, unopened 	

Safety

UN No.: 1210

UN Classification: Class 3 Flammable Liquids (Flash point is over 23 Degree C)

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 Items	Test conditions	Results
Adhesion	JIS K 5600-5-6(Cross-cut), 1mm interval 6×6、 cellophane tape peeling off	0(No peel off)
Scratch hardness (Pencil)	JIS K 5600-5-4(Pencil method), 750g weight, Hardness of the pencil which does not make scar	2H
Heat	80°C 24 hrs., check appearance of ink layer and peel off	No defect
Hot Water	JIS K 5600-6-2, Soak 24 hrs. in 60°C warm water, check appearance of ink layer and peel off	No defect
Moisture	JIS K 5600-7-2(Continuous dew drop) 60°C 85%RH 500 hrs., check appearance of ink layer and peel off	No defect
Cold	24 hrs. in -40°C、 check appearance of ink layer and peel off	No defect
Water	24 hrs. in city water, check appearance of ink layer and peel off	No defect
Acid	7 hrs. in 5% H ₂ SO ₄ , check appearance of ink layer and peel off	No defect
Alkali	3 hrs. in 5% NaOH, check appearance of ink layer and peel off	No defect
Alcohol	Gakushin scrub tester, cotton soaked ethanol, 500g weight, 3 times back and forth. Check peeling off from the substrate.	No defect
Oil	Soak 24 hrs. in vegetable oil, check appearance of ink layer	No defect
Solvent	Cotton soaked methyl ethyl ketone,500g weight, 3 times back and forth, check appearance of ink layer	No defect
Detergent	Soak 24 hrs. in 10% neutral detergent, check appearance of ink layer.	No defect
Artificial Sweat	Soak 24 hrs., check appearance of ink layer	No defect
Scrub	Gakushin scrub tester, with cotton, 500g weight, 1000 times back and forth, check color fade	No defect
Abrasion	JIS 5600-5-9(Abrasion ring method), 1kg weight,CS17 ring, 20 rounds, check exposure of under layer.	No defect
Scratch	Scrub with 300g load, check appearance of ink layer	No defect
Sand Rubber	LION brand #510 sand rubber,50g 200 scrubs, check appearance of substrate	Slightly abnormal
Falling-weight test	JIS K 5600-5-3 DuPont Impulse Tester, Drop 300g weight from 30cm height	No defect
Accelerated weather	Weather meter with carbon arc, Black panel temp. 63+/-3°C, raining rate 18min/120min, check color fade and peeling.	(500h) No defect

*Test conditions 【COS200(C) MATT CLEAR】 【Z-603 SOLVENT 20%】 【96 CATALYST 3%】
【T180】 【80°C 30 min】 【Substrate: Polycarbonate Sheet】

*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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