

TECHNICAL DATA SHEET

EFiRON[®] UVF-3000S

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A. MATERIAL DESCRIPTION

EFIRON UVF-3000S Coloring Ink is a radiation-curable composition for optical fiber color coating processes. The ink has good adhesion property, suitable viscosity, rapid cure speed, non-yellowing property, thermal resistance, high oxidative and hydrolytic (moisture) stability, which are required by optical fiber industry applications.

1. CURING CONDITION

EFIRON UVF-3000S Coloring Ink has fast cure speed, so it can be applied to 3,000 m/min lines.

Machine	OFC 52,55(Nextrom)	Medek
Lamp type	H, D bulb	H, D
Power unit	Fusion F600S	M550
Power supplier	P600M	
Lamp unit	3	2
Bulb length	10 inch	21 inch
Source Power	100%	PUV 1000 @ 1400mpm
	(1000 ~ 1800mpm)	
Ink Temp.	25 ~ 40 °C	25 ~ 40 °C
Ink pressure	1.5~3.8 bar @ 0~1600 mpm	
Nitrogen flow	45 L/min	45 L/min

2. STORAGE

EFIRON UVF-3000S Coloring Ink can be polymerized under improper storage conditions.

Store materials away from direct sunlight and presence of oxidizing agents and free radicals. Storage temperatures should not exceed 40 °C, preferably 10~30 °C. Under this condition, shelf life is 12 months.

3. PRECAUTION

EFIRON UVF 3000T Coloring Ink can cause skin and eye irritation after contact. Therefore, avoid direct contact with this material. If contact occurs, immediately rinse affected areas copiously with water.

A. MATERIAL DESCRIPTION

4. COLOR SPECIFICATIONS

Color	EFIRON UVF 3000S
Blue	9.0B ~ 4.0PB 2.5~4.5 / >8.0
Orange	9.0R~3.0YR 4.5~5.5 / >8.0~
Green	2.0G~4.0G 4.5~5.5 / >7.5
Brown	7.0R~9.0R 2.5~3.5 / >2.0
Gray	For any hue 4.5~6 / 0~0.5
White	For any hue 8.75~ / 0~0.5
Red	2.5R~4.5R 3.0~4.0 / >10.0
Black	For any hue 1~2.3 / 0~0.5
Yellow	1.0Y~3.0Y >6.5 / >11.0
Violet	1.0PB~3.0PB 3.5~4.5 / >7.0
Pink	9.0RP~1.5R >5.0 / >4.0
Aqua	4.0B~9.0B 5.0~6.0 / >4.0

1. Test Sample Condition: Liquid Color INK

2. Test Equipment: Minolta CM3700D

5. NOTES

The information contained herein is believed to be reliable but is not to be taken as representation, warranty or guarantee, and customers are urged to make their own tests.

C. GRAPH & TABLE RELATED DATA

1. Liquid Coating

Product	Viscosity [Unit : cPs]	Specific gravity
UVF 3000S	2,000~4,200	1.11~1.20

2. Cured Coating

Modulus (at 0.5 J/cm ²)	400~600 MPa
Elongation	3~5%
Tensile strength	10~20 MPa
Glass Transition Range, at E` _{1000Mpa} ~ E` _{100Mpa}	> 80 °C
MEK rubbing	> 200
Ethanol rubbing	> 200
Soxhlet Extractions with MEK	> 92 %
Attenuation Δ dB	< 0.005
Jelly Test (120 °C × 120hrs × OP300)	Pass