EFiRON®

Optical Solution Provider

TECHNICAL DATA SHEET

EFIRON® LP-1001

FOSPIA CO.,LTD

53, Jiwon-ro, Danwon-gu, Ansan-si, Gyeonggi-do, Korea
Tel) +82-31-365-3680 Fax) +82-31-365-3681
http://www.fospia.com

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EFiRON®

A. MATERIAL DESCRIPTION

EFIRON® LP-1001 is Low Micro-bending Primary coating for Glass Optical fiber. EFIRON® LP-1001 has suitable glass transition temperature, rapid cure property, non-yellowing, water resistance, high oxidative and hydrolytic (moisture) stability which are required by optical fiber industry application.

1. CURING CONDITION

EFIRON® LP-1001 has fast cure speed so it can be applied to 2,000 m/min line. The minimum UV dose for complete cure is about 0.3~0.4 J/cm^2 (UV-A range) under the nitrogen environment.

2. STORAGE

EFIRON® LP-1001 can be polymerized under improper storage conditions. Store materials away from direct sunlight and presence of oxidizing agents and free radicals. Storage temperature range is between 10℃ to 30℃.

3. PRECAUTION

EFIRON® LP-1001 can cause skin and eye irritation after contact. Therefore, avoid direct contact with these materials. If contact occurs, immediately rinse affected areas copiously with water.

4. 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.

B. MATERIAL PROPERTIES

1. Liquid Coating

Viscosity	at 25 ºC	3400 cPs
	at 35 ºC	1700 cPs
Density	at 23 ºC	1.04 $g \cdot cm^{-3}$
Refractive Index	at 25ºC	1.483

2. Cured Coating

Test at <1% R.H

Glass Transition Temperature at Tan_delta Max	-31 ºC

Test at 25ºC, 50% R.H

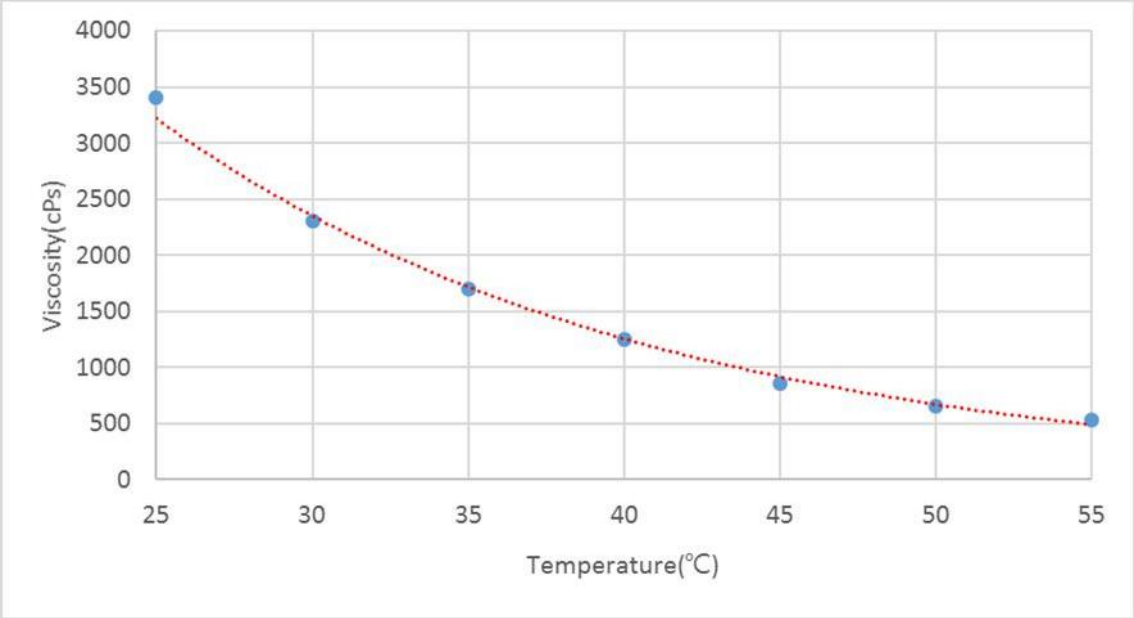
%RAU at 1J/cm^2(75 ㎛)	95%
UV Dose at 95% of Ultimate Secant Modulus	0.35 $J \cdot cm^{-2}$
Secant Modulus at 2.5% Strain	0.4~0.7MPa
Tensile Strength	0.4~0.7MPa
Elongation	102 %
Refractive Index	1.483
Coefficient of Expansion, 500um film	1.47 x10^{-4} ℃$^{-1}$
Adhesion to Glass, per 25mm	
50% R.H	1.15 N
85% R.H	1.00 N

* Film preparation in Test A of EFIRON® test methods :

75 ㎛ film thickness, D-bulb, 1.0 J/cm^2 (UV-A Range: 315− 400nm) with Nitrogen Box.

C. GRAPH & TABLE RELATED DATA

1. VISCOSITY PROFILE



2. Cure Energy