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Optical Solution Provider

TECHNICAL DATA SHEET

EFIRON® Polymer Clad Series

SPC-363



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A. MATERIAL DESCRIPTION

EFIRON[®] SPC-363 coating is a radiation-curable acrylate useful for polymer cladding making processes. EFIRON[®] SPC-363 coating has suitable glass transition temperature, rapid cure property, non-yellowing, thermal resistance, high oxidative and hydrolytic (moisture) stability, which are required by optical fiber industry applications.

1. CURING CONDITION

Minimum UV dose of EFIRON® SPC-363 for complete cure is 1000 mJ/cm² under a nitrogen environment. However, the minimum dosage is heavily dependent upon the thickness of the PC layer.

2. STORAGE

EFIRON SPC-363 polymer cladding coating can polymerize under improper storage conditions. Store materials away from direct sunlight and presence of oxidizing agents and free radicals. Storage temperature range is between $10\,^{\circ}\mathrm{C}$ to $30\,^{\circ}\mathrm{C}$.

3. PRECAUTION

 $EFIRON^{\otimes}$ SPC-363 polymer cladding coating materials 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

Viscosity at 25 $^{\circ}$ C 4,500 cPs Density at 20 $^{\circ}$ C 1.52 g·cm⁻³ Refractive Index at 25 $^{\circ}$ C, 589 nm 1.361 Surface Tension In Testing

2. CURED

| D. G | 1.262 |
|-----------------------------------|--------------------|
| Refractive Index at 852 nm | 1.363 |
| Glass Transition Temperature | |
| At Tan_delta Max | 39 ℃ |
| Secant Modulus | |
| At 2.5% Strain | 40 MPa(In Testing) |
| Tensile Strength at Break | 10 MPa(In Testing) |
| Elongation at Break | 90 %(In Testing) |
| Water Sensitivity (24 Hour, 50 ℃) | |
| Weight Change | In testing |
| Extractable | In testing |
| Coefficient of Expansion | |
| Glassy Region | In testing |
| Rubbery Region | In testing |
| Shrinkage on Cure | <10.0 % |

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