

TECHNICAL DATA SHEET

EFIRON[®] Polymer Clad
Series

APC-382



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A. MATERIAL DESCRIPTION

EFIRON[®] APC-382 coating is a radiation-curable acrylate useful for polymer cladding making processes. EFIRON[®] APC-382 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[®] APC-382 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[®] APC-382 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°C to 30°C.

3. PRECAUTION

EFIRON[®] APC-382 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 °C	5,000 cPs
Density	at 20 °C	1.52 g·cm ⁻³
Refractive Index	at 25 °C, 589 nm	1.378
Surface Tension		In Testing

2. CURED

Refractive Index at 852 nm	1.382
Glass Transition Temperature	
At Tan_delta Max	60 °C
Secant Modulus	
At 2.5% Strain	200 MPa(In Testing)
Tensile Strength at Break	10 MPa(In Testing)
Elongation at Break	60 %(In Testing)
Glass Adhesion	3.8 N/25mm (In Testing)
Water Sensitivity (24 Hour, 50 °C)	
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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