

TECHNICAL DATA SHEET

EFIRON[®] Polymer Clad
Series

SPC-452

FOSPIA
OPTICAL SOLUTIONS

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CONTENTS

- A. MATERIAL DESCRIPTION

- B. MATERIAL PROPERTIES
 - 1. Liquid
 - 2. Cured

A. MATERIAL DESCRIPTION

EFIRON[®] SPC-452AP coating is a radiation-curable acrylate useful for polymer cladding making processes. EFIRON[®] SPC-452AP 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-452AP for complete cure is minimum 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-452AP 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[®] SPC-452AP 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	4,200 cPs
Density	at 20 °C	1.52 g·cm ⁻³
Refractive Index	at 25°C, 589 nm	1.442

2. CURED

Refractive Index at 852 nm	1.452
Glass Transition Temperature	
At Tan_delta Max	90 °C
Secant Modulus	
At 2.5% Strain	680 MPa
Young's Modulus	760 MPa
Tensile Strength at Break	30 MPa(In Testing)
Elongation at Break	10 %(In Testing)
Shrinkage on Cure	<10.0 %

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