

TECHNICAL DATA SHEET

EFIRON[®] Polymer Clad
Series

HRI-610



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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A. MATERIAL DESCRIPTION

EFIRON[®] HRI-610 coating is a radiation-curable acrylate useful for various optical applications. EFIRON[®] HRC-610 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[®] HRI-610 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[®] HRI-610 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°C to 30°C.

3. PRECAUTION

EFIRON[®] HRI-610 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	600 cPs
Density	at 20 °C	1.52 g·cm ⁻³
Refractive Index	at 25°C, 589 nm	1.5881

2. CURED

Refractive Index at 852 nm	1.6115
Glass Transition Temperature	
At Tan_delta Max	In testing
Secant Modulus	
At 2.5% Strain	In testing
Tensile Strength at Break	In testing
Elongation at Break	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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