EFiRON®

Updated 17/07/07

Optical Solution Provider

# TECHNICAL DATA SHEET

**EFIRON® Polymer Clad Series**

**XPC-363**

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# A. MATERIAL DESCRIPTION

EFIRON® XPC-363 coating is a radiation-curable acrylate useful for polymer cladding making processes. EFIRON® XPC-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® XPC-363 for complete cure is 1000 mJ/cm$^2$ under a nitrogen environment. However, the minimum dosage is heavily dependent upon the thickness of the PC layer.

## 2. STORAGE

EFIRON® XPC-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℃ to 30℃.

## 3. PRECAUTION

EFIRON® XPC-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 ℃ | 1,300 cPs |
| Density | at 20 ℃ | 1.52 $g \cdot cm^{-3}$ |
| Refractive Index at 25℃, 589 nm | | 1.357 |
| Surface Tension | | In Testing |

## 2. CURED

| | |
|---|---|
| Refractive Index at 852 nm | 1.363 |
| Glass Transition Temperature | |
| At Tan_delta Max | 73 ℃ |
| Secant Modulus | |
| At 2.5% Strain | 90 MPa(In Testing) |
| Tensile Strength at Break | 8 MPa(In Testing) |
| Elongation at Break | 15.0 %(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 % |