

TECHNICAL DATA SHEET

EFIRON® TPR-550

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A. MATERIAL DESCRIPTION

EFIRON[®] TPR-550 is Hyper coating for Glass Optical fiber. EFIRON[®] TPR-550 has suitable glass transition temperature, rapid cure property, free-point lump, water and chemical resistance, low volatilization, high oxidative and hydrolytic (moisture) stability which are required by optical fiber industry application.

1. CURING CONDITION

EFIRON[®] TPR-550 has cure speed so it can be applied to 1,000 m/min line. The minimum UV dose for complete cure is about 1 J/cm² (UV-A range) under the nitrogen environment.

2. STORAGE

EFIRON[®] TPR-550 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[®] TPR-550 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.

1. Liquid Coating

| | | |
|------------------|----------|-------------------------|
| Viscosity | at 25 °C | 700 cPs |
| Density | at 23 °C | 1.10 g·cm ⁻³ |
| Refractive Index | at 25 °C | 1.5410 |

2. Cured Coating

Test at <1% R.H

| | |
|------------------------------|------------|
| Glass Transition Temperature | |
| at Tan_delta Max | In testing |

Test at 23 °C, 50% R.H

| | |
|-------------------------------|-----------|
| Secant Modulus at 2.5% Strain | 1,500 MPa |
| Tensile Strength | 48 MPa |
| Elongation | 3.0 % |
| Refractive Index at 852nm | 1.5552 |

* Film preparation in Test A of EFIRON® test methods :

75 µm film thickness, D-bulb, 1.0 J/cm² (UV-A Range: 315-400nm) with Nitrogen Box
