



## Product Data

# DeSolite® 950-200

### Product Description

DeSolite® 950-200 UV-curable splicing compound provides long-term protection of optical fiber from moisture and chemicals. Its low viscosity makes this product suitable for all automatic and manual recoat applicators. DeSolite® 950-200 is a one-component system that has been used in the industry for more than 10 years.

### Product Benefits

- Low viscosity for splicing applications
- Very low water sensitivity
- Will not stick to recoater molds
- Patent-protected

### Performance Characteristics

Liquid Coating	Typical Properties
Viscosity, at 25°C, mPa•s	2500
Density, 23°C, kg•m <sup>-3</sup>	1080
Refractive Index, 23°C	1.500
Surface tension, 23°C, dynes•cm <sup>-1</sup>	35

Cured Coating* (Tested at <1% R.H.)	Typical Properties
Glass Transition Range (DMA*), °C -- Peak Tan δ	26

\*Dynamic Mechanical Analysis (see DMA graph)

Cured Coating* (continued) (Tested at 23°C, 50% R.H.)	Typical Properties
Secant modulus, 2.5% strain, MPa	28
Elongation, %	55
Tensile strength, MPa	9
Degree of Cure (UV dose at 95% of Ultimate Secant Modulus, J•cm <sup>-2</sup> )	0.8
Cure speed by FT-IR, sec -- Time to reach 90% cure	3
Dynamic water sensitivity (250 µm films) -- weight change, % -- extractables, %	0.5 1.0
Refractive Index	1.550
Linear shrinkage on cure, %	2
Hydrogen generation (24 hrs, 80°C in air, 75 µm films, µl•g <sup>-1</sup> )	1.3
Coefficient of expansion (TMA), 500 µm films -- in glassy region (x10 <sup>-6</sup> ), °C <sup>-1</sup> -- in rubbery region (x10 <sup>-6</sup> ), °C <sup>-1</sup>	90 250
% Transmission, 75µm film -- 1310 nm -- 1550 nm	99 99
Coefficient of friction (cured in nitrogen): coating to stainless steel, gm • force	0.3
Adhesion to glass, per 25mm -- Dry, 50% RH, N x (10 <sup>-2</sup> ) -- Wet, 95% RH, N x (10 <sup>-2</sup> )	14 7
Aging after 8 weeks Thermal weight change, % -- at 125°C -- at 85°C -- at 85°C/85% RH	6 4 3



## Test Methods

Detailed test methods may be obtained through your Covestro sales representative.

## Filtration

DeSolite® Optical Fiber Coatings are manufactured using fine filtration techniques designed to minimize particulate matter and to ensure high strength and uniform product performance.

## Storage Conditions

Protect DeSolite® coatings from all sources of ultraviolet light, including sunlight and fluorescent light, to prevent premature curing. It is recommended that DeSolite® coatings be stored in a dry place in unopened, undamaged, original containers at temperatures between 15°C and 30°C. Storage or shipment in cold conditions may result in a phase separation which is reversible and is corrected by heating for 24 hours at 50°C. If possible, the container should be gently rolled to assure uniform dissolution during this heating process.

## Shelf Life

DeSolite® 950-200 has a recommended shelf life of 2 years from the date of manufacture, provided that the above stated storage conditions are properly maintained.

## Safety Information

This product is formulated with multifunctional acrylates which may cause skin and eye irritation and/or skin sensitization. Safety data sheets for each product are also available from your Covestro sales representative. All safety and handling recommendations should be followed carefully.

## Conversions

$$N = g \cdot f \times 9.807 \times 10^{-3} \quad \text{kg} \cdot \text{mm}^{-2} = \text{MPa} \times 0.102$$
$$\text{psi} = \text{MPa} \times 145 \quad \text{mPa} \cdot \text{s} = \text{cps}$$

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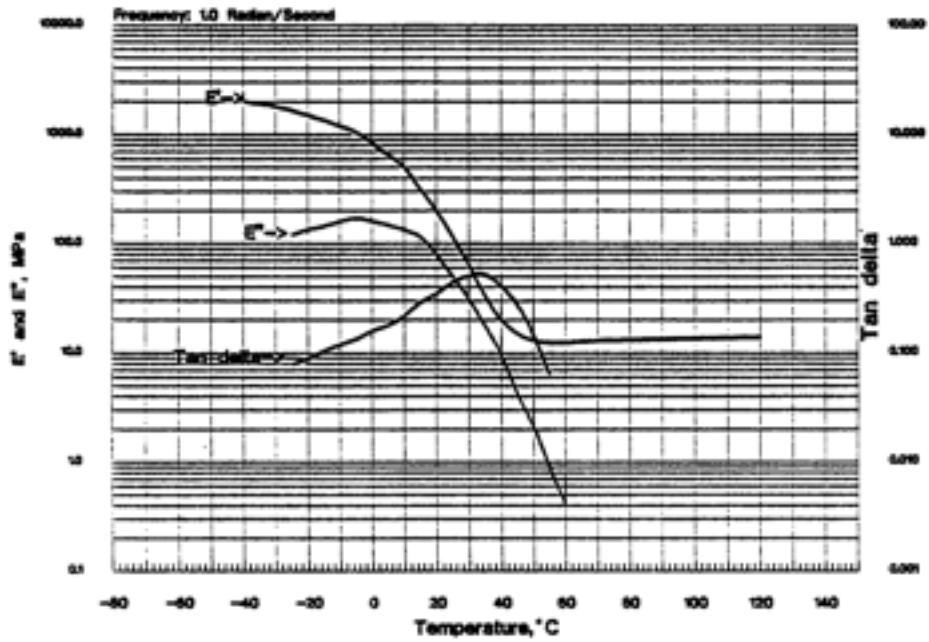
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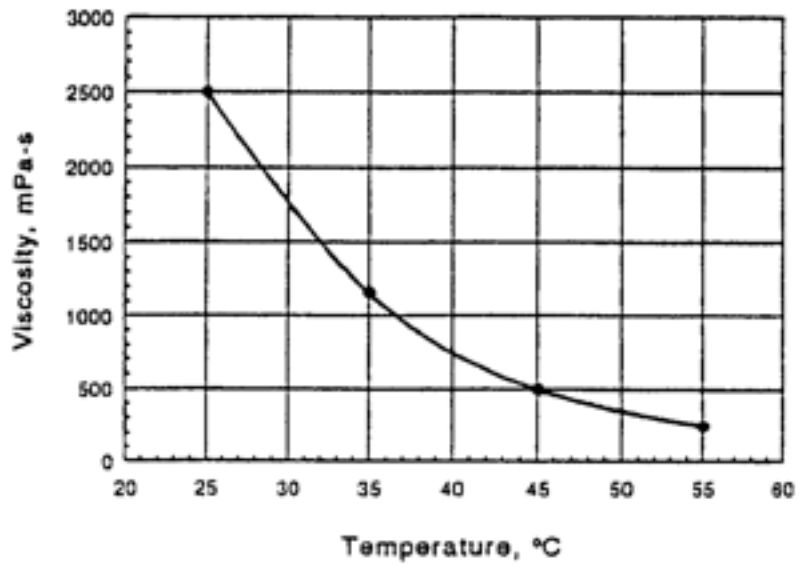
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### Dynamic Mechanical Analysis (DMA)



### Viscosity vs. Temperature





### Cure Speed

