

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, 25°C, mPa·s	2500
Density, 23°C, kg·m ⁻³	1080
Refractive index, 23°C	1.500
Surface tension, 23°C, dynes·cm ⁻¹	23

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* (Tested at 23°C, 50% R.H.)	Typical Properties
Secant modulus, 2.5% strain, MPa	49
Elongation, %	55
Tensile strength, MPa	18
Degree of Cure (UV dose at 95% of Ultimate Secant Modulus, J·cm ⁻²)	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 ⁻¹)	1.3
Coefficient of expansion (TMA), 500 µm films -- in glassy region (x10 ⁻⁶), °C ⁻¹ -- in rubbery region (x10 ⁻⁶), °C ⁻¹	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 ⁻²) -- Wet, 95% RH, N x (10 ⁻²)	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

DSM Desotech's booklet titled, "Test Methods for DeSolite[®] UV Curable Fiber Optic Materials" should be referenced for abstracts of test methods used to establish the data presented herein. Detailed test methods may be obtained through your Desotech 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.

Contact Us:

DSM Desotech Inc.
1122 St. Charles Street
Elgin, Illinois 60120
USA
Tel: +1-847-697-0400
Fax: +1-847-468-7785

DSM Desotech bv
P.O. Box 68
3150 AB Hoek van Holland No.
The Netherlands
Tel: +31-1743-15391
Fax: +31-1743-15530

DSM Desotech
11F, The Headquarters Building
168 Middle Xi Zang Rd.
Shanghai 200001 CHINA
Tel: +86-21-61418188
Fax: +86-21-61417008

Shelf Life

DeSolite[®] 950-200 has a recommended shelf life of 18 months from the date of manufacture, provided that the above stated storage conditions are properly maintained.

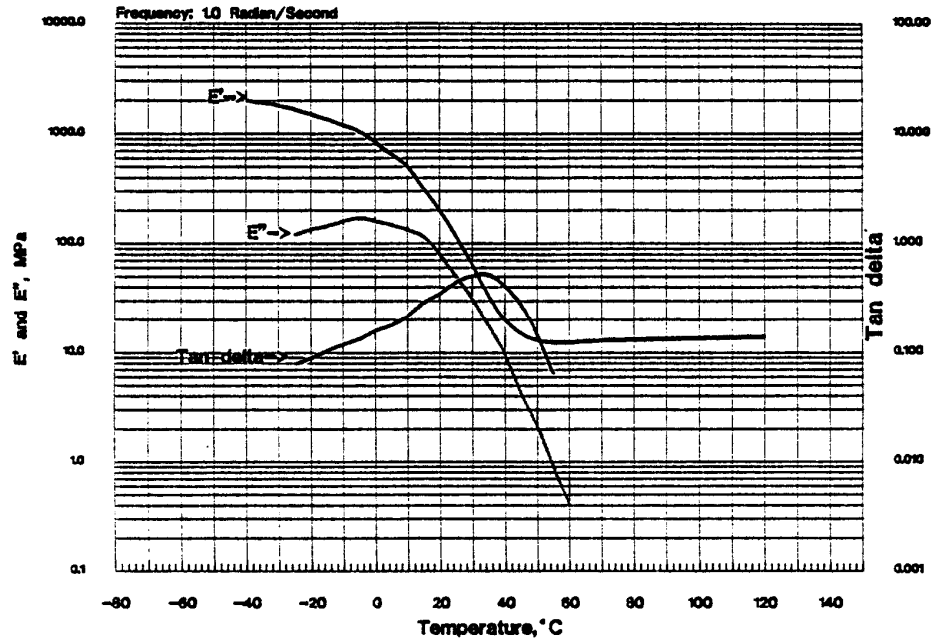
Safety Information

This product is formulated with multifunctional acrylates which may cause skin and eye irritation and/or skin sensitization. DSM Desotech makes available a booklet titled, "Safe Handling of UV-Curable Materials" which describes the proper use of its UV-curable products. This booklet may also be found online at www.dsmdesotech.com. Material safety data sheets for each product are also available from your DSM Desotech sales representative. All safety and handling recommendations should be followed carefully.

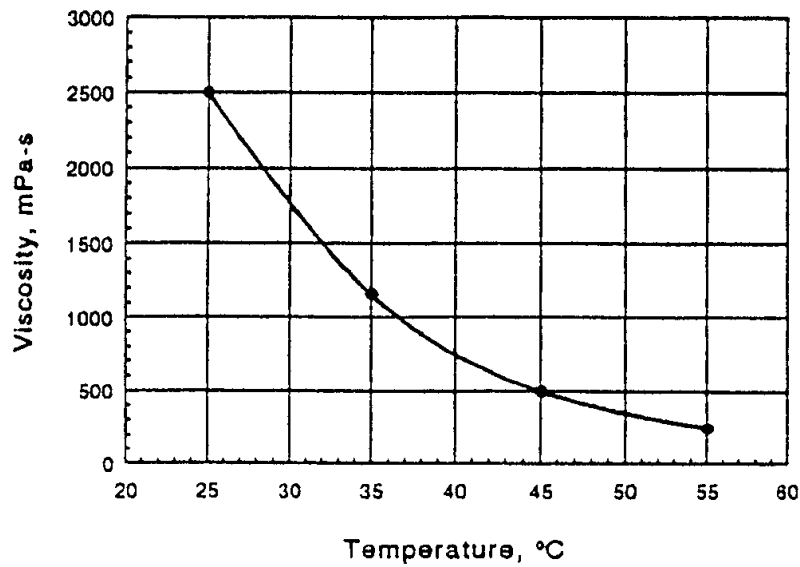
Conversions

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

Dynamic Mechanical Analysis (DMA)



Viscosity vs. Temperature



Cure Speed

