

**Manufacturer:**

Covestro

**Product Name:**

Covestro Desolite® 3471-3-14 Single Coat Primary Optical Fiber Coating, UV Cure (10 kg)

**Manufacturer Part Number:**

COV-3471-3-14-10KG



▶ [Click here for more details on the Covestro Desolite® 3471-3-14 Single Coat Primary Optical Fiber Coating, UV Cure \(10 kg\)](#)

**DeSolite®**  
Optical Fiber Coatings



Product Data

**DeSolite® 3471-3-14**

**Product Description**

Optical fiber primary coating

**Product Benefits**

- Single layer application
- Excellent adhesion
- Low moisture sensitivity
- Patent-protected

**Characteristics**

Liquid Coating	Typical Properties
Viscosity, 25 °C, mPa•s	10,000
Density, 23 °C, kg•m <sup>-3</sup>	1110
Liquid Refractive Index, 23 °C	1.500
Surface tension, 23 °C, dynes•cm <sup>-1</sup>	25
Cured Coating* (Tested at <1% R.H.)	Typical Properties
Glass Transition Range (DMA**), °C at E' <sub>1000 MPa</sub>	-18
Glass Transition Range (DMA**), °C at E' <sub>100 MPa</sub>	29
Cured Coating* (Tested at 23 °C, 50% R.H.)	Typical Properties
Segment modulus, 2.5% strain, MPa	35
Elongation, %	60
Tensile strength, MPa	12
Degree of Cure (UV dose at 95% of Ultimate Secant Modulus, J•cm <sup>-2</sup> )	0.4
Dynamic water sensitivity (150 µm films)	
-- weight change, %	2.0
-- extractables, %	1.0
Refractive Index	1.540

Cured Coating* (continued) (Tested at 23 °C, 50% R.H.)	Typical Properties
Hydrogen generation (24 hrs, 80 °C in air, 75 µm films, µl•g <sup>-1</sup> )	0.2
Volumetric coefficient of expansion (DMA), 500 µm films	
-- in the glassy region (x10 <sup>-6</sup> ), °C <sup>-1</sup>	50
-- in the rubbery region (x10 <sup>-6</sup> ), °C <sup>-1</sup>	180
Adhesion to glass, per 25mm	
-- 50% R.H. (Nx10 <sup>-2</sup> )	50
-- 95% R.H. (Nx10 <sup>-2</sup> )	5
Aging after 8 weeks	
Thermal weight change, %	
-- at 95 °C	1
-- at 125 °C	6

\*75 µm films cured in nitrogen at 1.0 J•cm<sup>-2</sup> using one D lamp, unless stated otherwise. UV dose determined with an IL-390 radiometer manufactured by International Light, Inc.

\*\*Dynamic Mechanical Analysis (see DMA graph)

**Contact the professionals at Fiber Optic Center for a quote or to get more details.**

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## DeSolite® 3471-3-14



**Test Methods**

Test methods available upon request.

**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® 3471-3-14 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. Safety data sheets for each product are available from your Covestro sales representative. All safety and handling recommendations should be followed carefully.

**Conversions**

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

The manner in which you use our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products to determine suitability for your processing and intended uses. Your analysis must at least include testing to determine suitability from a technical, health, safety, and environmental and regulatory standpoint. Such testing has not necessarily been done by Covestro, and Covestro has not obtained any approvals or licenses for a particular use or application of the product, unless explicitly stated otherwise.

Any samples provided by Covestro are for testing purposes only and not for commercial use.

Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale which are available upon request.

All information and including technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed by you that you assume and hereby expressly release indemnify us and hold us harmless from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with any claim of any patent relative to any material or its use. No license is implied or in fact granted under the claims of any patent.

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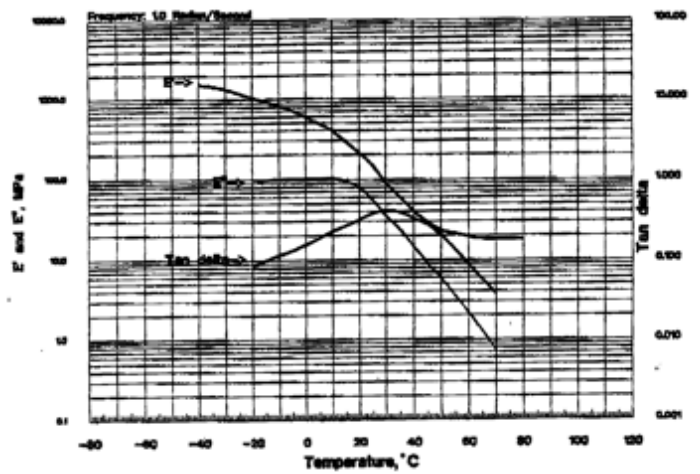


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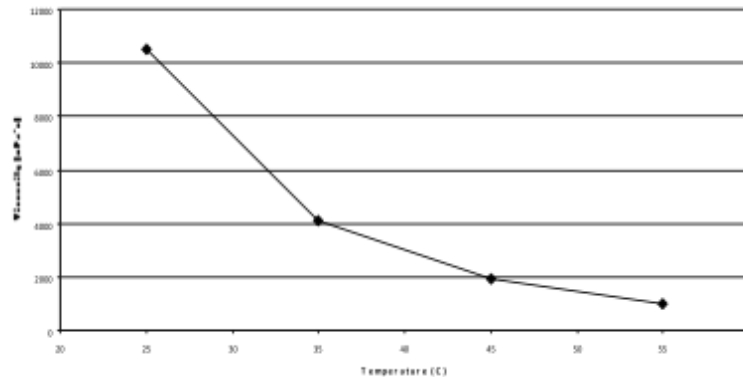
## DeSolite® 3471-3-14



### Dynamic Mechanical Analysis (DMA)



### Viscosity vs. Temperature

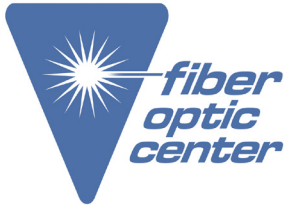


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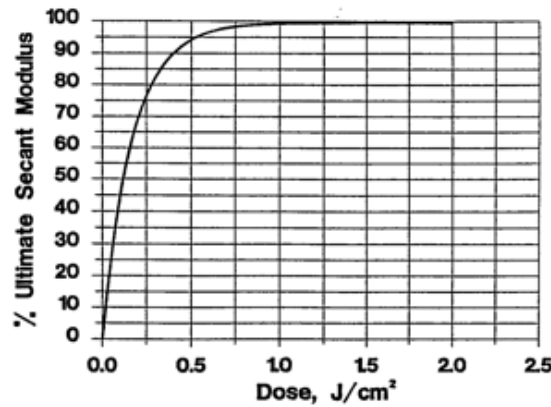
Learn More

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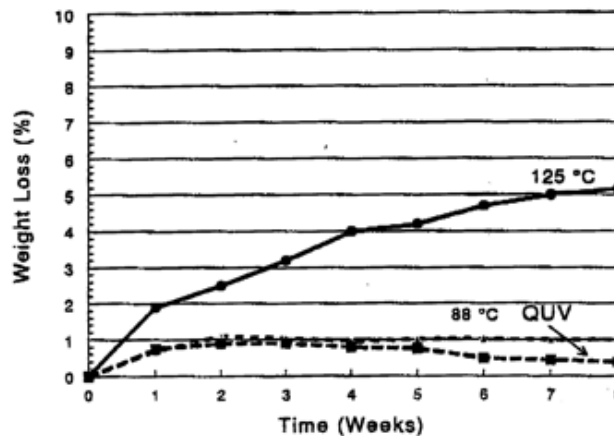
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### Cure Speed



### Accelerated Aging



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