



**Manufacturer:**

Covestro

**Product Name:**

Covestro Desolite® 3471-1-129A Primary Optical Fiber Coating, UV Cure (10 kg)

**Manufacturer Part Number:**

COV-3471-1-129A-10KG



▶ Click here for more details on the Covestro Desolite® 3471-1-129A Primary Optical Fiber Coating, UV Cure (10 kg)

**DeSolite®**  
Optical Fiber Coatings



Product Data

**DeSolite® 3471-1-129A**

Product Description

Optical fiber primary coating.

Characteristics

Liquid Coating	Typical Properties
Viscosity, --- at 25°C, mPa•s --- at 35°C, mPa•s	7150 3900
Density, 23°C, kg•m <sup>-3</sup>	1,005
Surface tension, 23°C, dynes•cm <sup>-1</sup>	35
Liquid Refractive Index, 23°C	1.480
Surface tension, 23°C, dynes•cm <sup>-1</sup>	35

Cured Coating* (Tested at <1% R.H.)	Typical Properties
Glass Transition Range (DMA**), °C at E' <sub>1000 MPa</sub>	-60
Glass Transition Range (DMA**), °C at E' <sub>100 MPa</sub>	-37

\*Dynamic Mechanical Analysis (see DMA graph)

Cured Coating* (Tested at 23°C, 50% R.H.)	Typical Properties
Segment modulus, 2.5% strain, MPa	1.3
Elongation, %	200
Tensile strength, MPa	1.0
Degree of Cure, RTDMA*** Gel Time, s	0.3
Dynamic water sensitivity (150 µm films) -- peak absorption, % -- extractables, %	0.8 ---
Refractive Index	1.505

Product Benefits

- Fast cure
- Good low-temperature performance
- Excellent ribbon strippability
- Patent-protected

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> )	0.9
Volumetric coefficient of expansion (DMA), 500 µm films -- in the glassy region (x10 <sup>-6</sup> ), °C <sup>-1</sup> -- in the rubbery region (x10 <sup>-6</sup> ), °C <sup>-1</sup>	<100 400
Adhesion to glass, per 25mm -- 50% R.H. (Nx10 <sup>-2</sup> ) -- 95% R.H. (Nx10 <sup>-2</sup> )	70 70
Aging after 8 weeks Thermal weight change, %, -- at 88°C -- at 125°C	3 2

\*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)

\*\*\* Real Time Dynamic Mechanical Analysis - measures the mechanical property development from liquid to film state

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

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23 Centre Street • New Bedford, MA 02740 USA

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## DeSolite® 3471-1-129A



**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® 3741-1-129A has a recommended shelf life of 12 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. Covestro makes available a booklet titled, "Safe Handling of UV-Curable Materials" which describes the proper use of its UV-curable products. This booklet and material safety data sheets for each product are also available from your Covestro sales representative. All safety and handling recommendations should be followed carefully.

**Conversions**

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

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.

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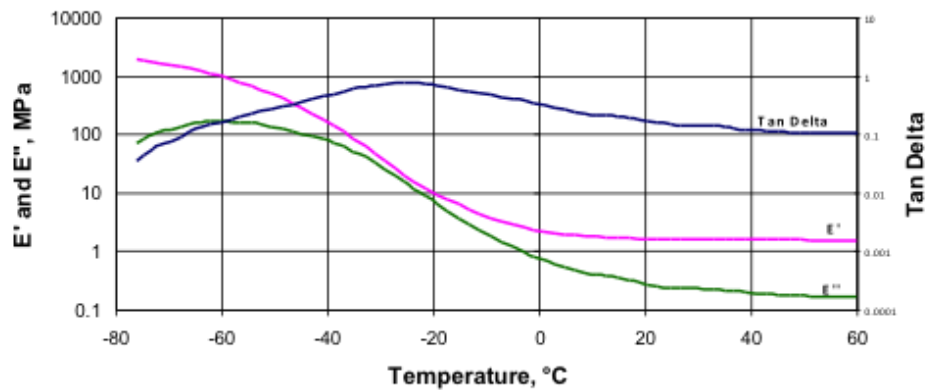
Learn More

▶ [Click here for more details on the Covestro Desolite® 3471-1-129A Primary Optical Fiber Coating, UV Cure \(10 kg\)](#)

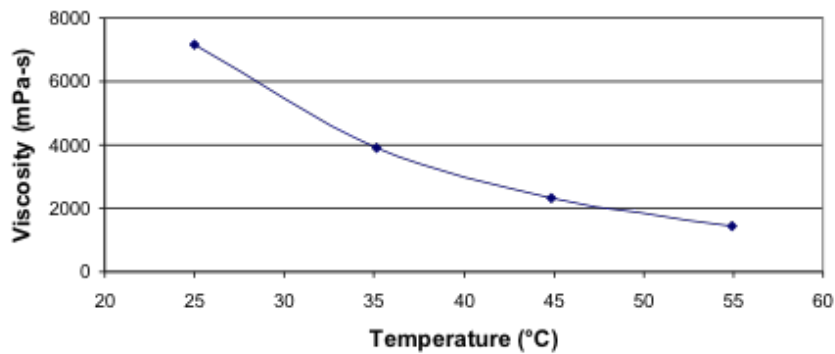
## DeSolite® 3471-1-129A



### Dynamic Mechanical Analysis (DMA)



### Viscosity vs. Temperature



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