



## Product Data

# Next Generation Primary Coating

## DeSolite® DP-1032

### Product Description

Next Generation DeSolite® Supercoatings are developed for both Wet-on-Wet and Wet-on-Dry processes that provide superior microbending performance and robust field application.

### Characteristics

Liquid Coating	Typical Properties
Viscosity, 25°C, mPa•s	4,465
Density, 23°C, g/cm <sup>3</sup>	1.055
Liquid Refractive Index, 20°C	1.488
Surface tension, 23°C, dynes•cm <sup>-1</sup>	34

Mechanical Property (RTDMA*)	Typical Properties
Gel Time, sec	0.39
Plateau Modulus, MPa	0.35

Cured Coating* (Tested at <1% R.H.)	Typical Properties
Glass Transition Range (DMA***), °C at E' <sub>1000 MPa</sub>	-42
Glass Transition Range (DMA***), °C at E' <sub>100 MPa</sub>	-32

Cured Coating* (Tested at 23°C, 50% R.H.)	Typical Properties
Elongation, %	108
Tensile strength, MPa	0.6
Segment modulus, MPa	1.0

### Product Benefits

- Enables high draw speeds
- Exceptional microbend performance
- High  $n_d$  for 2 pt. bending and tensile methods
- Excellent cavitation resistance
- Optimized adhesion for ribbon, loose-tube and aging performance

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> )	0.0
Refractive Index	1.496
Adhesion to glass, 50% RH conditioning, g/in	43
Adhesion to glass, 95% RH conditioning, g/in	35

\*Real Time Dynamic Mechanical Analysis

\*\*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

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## 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

Recommended shelf life is 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. Safety data sheets for each product are available from your Covestro sales representative. All safety and handling recommendations should be followed carefully.

## Conversions

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

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