



Product Data

Bufferlite™ DU-1002

Product Description

Bufferlite™ DU-1002 is a soft, flexible product used for the inner layer for tight buffer applications. This material can be used to buffer fiber up to 500 microns and allows for an overcoat with a tough UV or thermoplastic outer layer.

Product Benefits

- Fast cure
- Low modulus
- Excellent strippability
- Patent-protected

Performance Characteristics

Liquid Coating	Typical Properties
Viscosity, 25 °C, mPa•s	3000
Density, 23 °C, kg•m-3	1030

Cured Coating* (Tested at <1% R.H.)	Typical Properties
Glass Transition Range (DMA**), °C at E' 1000 MPa	-56
Glass Transition Range (DMA**), °C at E' 100 MPa	-46

Cured Coating* (Tested at 23 °C, 50% R.H.)	Typical Properties
Secant modulus, 2.5% strain***, MPa	2.6
Elongation***, %	38
Tensile strength***, MPa	0.8
Degree of Cure (UV dose at 95% of Ultimate Secant Modulus, J•cm-2)	0.45
Water Absorption after 24 hrs., 250 µm films, %	1.4
Hydrogen generation (24 hrs, 80 °C in air, 75 µm films, µl•g-1)	2.0

*75 µm films cured in nitrogen at 1.0 J•cm-2 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)

***TEM properties were obtained on glass after 1 to 2 hours conditioning at 22 +/- 2 °C and 50% +/- 5 RH.

Bufferlite™ DU-1002 Series



Test Methods

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

Storage Conditions

Protect Bufferlite™ resins from all sources of ultraviolet light, including sunlight and fluorescent light, to prevent premature curing.

It is recommended that Bufferlite™ resins 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.

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

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

Contact Us:

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

Covestro Desotech b.v.
Slachthuisweg 30
3151 XN Hoek van Holland
The Netherlands
Tel: +31-1743-15391

Covestro Desotech Specialty Chemicals Ltd.
476 Li Bing Road
Zhangjiang Hi-Tech Park
Pudong New Area
Shanghai 201203, China
Tel: +86-21-6141-8064

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.

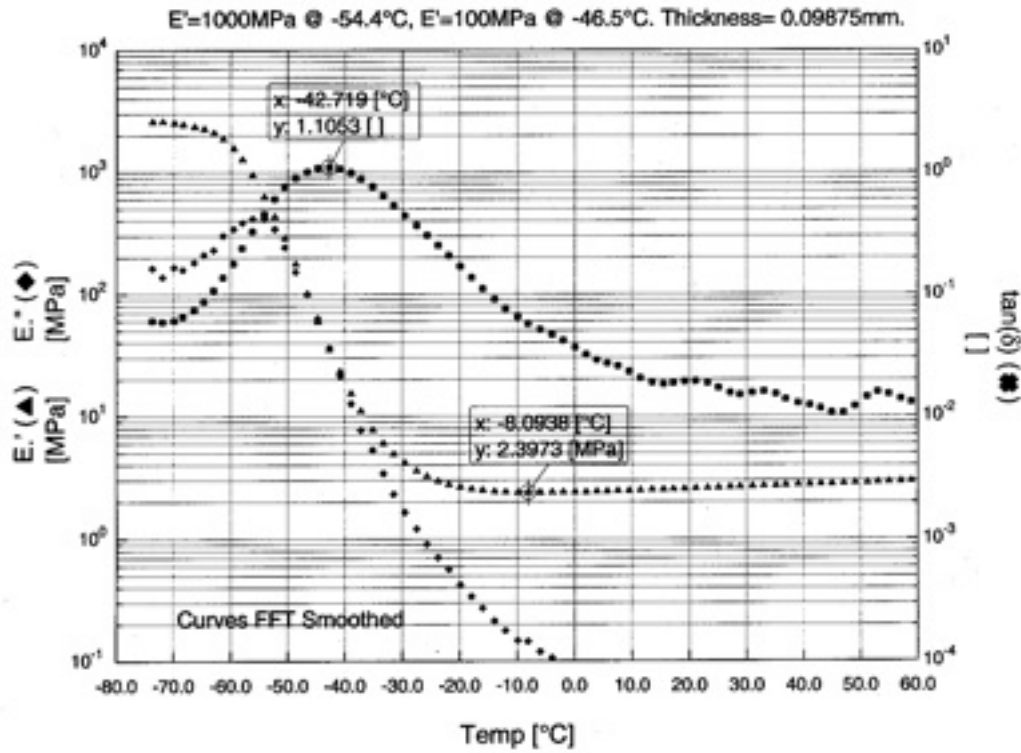
Any samples provided by Covestro are for testing purposes only and not for commercial use.

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.



Dynamic Mechanical Analysis (DMA)



Viscosity vs. Temperature

