## NeXolve Novastrat® 800 Polyimide

Category : Polymer , Film , Thermoset , Polyimide, TS , Polyimide, Thermoset Film

### Material Notes:

High temperature polyimide film with low coefficient of thermal expansion.NeXolve Novastrat® 800 is a high temperature polyimide film with low coefficient of thermal expansion (CTE), ~4 ppm/°C from -140 °C to +225 °C, that closely matches the CTE of many metals and metal oxides. Novastrat® 800 has been successfully used in applications requiring the stability of low CTE from cryogenic conditions (less than -150 °C, -238 °F) to very high temperatures (greater than 250 °C, 482 °F).Novastrat® 800 is a recommended grade for applications that require low CTE and stable properties across a wide range of operating temperatures. Novastrat® 800 is provided as a film in sheet form, or liquid resin for spray or flow casting operations. As a liquid, it bonds well to metals and metal oxides, and is supplied with and without a variety of internal adhesion promoters.Information Provided by NeXolve Corporation.

#### Order this product through the following link:

http://www.lookpolymers.com/polymer\_NeXolve-Novastrat-800-Polyimide.php

| Mechanical Properties | Metric                  | English                   | Comments     |
|-----------------------|-------------------------|---------------------------|--------------|
| Tensile Strength      | 272 MPa                 | 39500 psi                 | ASTM D882-02 |
|                       | @Thickness 0.0178<br>mm | @Thickness 0.000701<br>in |              |
| Elongation at Break   | 6.0 %                   | 6.0 %                     | ASTM D882-02 |
|                       | @Thickness 0.0178<br>mm | @Thickness 0.000701<br>in |              |
| Tensile Modulus       | 8.00 GPa                | 1160 ksi                  | ASTM D882-02 |
|                       | @Thickness 0.0178<br>mm | @Thickness 0.000701<br>in |              |

| Thermal Properties        | Metric   | English  | Comments           |
|---------------------------|--|--|--------------------|
| CTE, linear               | 6.00 µm/m-°C   | 3.33 µin/in-°F   | ASTM E831-06       |
|                           | @Thickness 1.00 mm,<br>Temperature -125 -<br>20.0 °C | @Thickness 0.0394 in,<br>Temperature -193 -<br>68.0 °F |                    |
| Glass Transition Temp, Tg | 341 °C   | 646 °F   | DSC; ASTM E1356-03 |

| Optical Properties | Metric  | English   | Comments                   |
|--------------------|---|---|----------------------------|
| Refractive Index   | 1.62  | 1.62  | Abbe; ASTM D542-00         |
|                    | @Wavelength 549 nm                            | @Wavelength 549 nm                              |                            |
|                    | 50 %  | 50 %  | 50% Transmission UV Cutoff |
| UV Transmittance   | @Thickness 0.0178<br>mm,<br>Wavelength 438 nm | @Thickness 0.000700<br>in,<br>Wavelength 438 nm |                            |

## SONGHAN Plastic Technology Co., Ltd.

| Descriptive Properties | Value                                     | Comments                        |
|------------------------|---|---------------------------------|
| Applications           | Advanced Composites                       |                                 |
|                        | Electrical Insulators                     |                                 |
|                        | Industrial Tapes                          |                                 |
|                        | Space Structures                          |                                 |
|                        | Thermal Insulation                        |                                 |
| Characteristics        | Bonds directly to metals and metal oxides |                                 |
|                        | Conductive and non-conductive grades      |                                 |
|                        | High heat stability                       |                                 |
|                        | Low coefficient of thermal expansion      |                                 |
| Solar Absorptivity     | 0.1                                       | 0.7 mil thickness; ASTM E903-96 |

# Contact Songhan Plastic Technology Co.,Ltd.

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