

## Schott N-LAK7 Glass

Category : Ceramic , Glass

### Material Notes:

Information Provided by SCHOTT North America, Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Schott-N-LAK7-Glass.php](http://www.lookpolymers.com/polymer_Schott-N-LAK7-Glass.php)

| Physical Properties | Metric    | English                  | Comments |
|---------------------|-----------|--------------------------|----------|
| Density             | 3.84 g/cc | 0.139 lb/in <sup>3</sup> |          |

| Mechanical Properties | Metric   | English   | Comments   |
|-----------------------|----------|-----------|------------|
| Knoop Microhardness   | 600      | 600       | .1/20      |
| Modulus of Elasticity | 90.0 GPa | 13100 ksi |            |
| Poissons Ratio        | 0.277    | 0.277     |            |
| Shear Modulus         | 35.0 GPa | 5080 ksi  | calculated |

| Thermal Properties             | Metric   | English  | Comments |
|--------------------------------|--|--|----------|
| CTE, linear                    | 7.10 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ | 3.94 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$ |          |
|                                | @Temperature -30.0 - 70.0 $\text{Å}^\circ\text{C}$     | @Temperature -22.0 - 158 $\text{Å}^\circ\text{F}$        |          |
|                                | 8.20 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ | 4.56 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$ |          |
|                                | @Temperature 20.0 - 300 $\text{Å}^\circ\text{C}$       | @Temperature 68.0 - 572 $\text{Å}^\circ\text{F}$         |          |
| Transformation Temperature, Tg | 618 $\text{Å}^\circ\text{C}$                           | 1140 $\text{Å}^\circ\text{F}$                            |          |

| Optical Properties    | Metric                                | English                                | Comments       |
|-----------------------|---------------------------------------|--|----------------|
| Refractive Index      | 1.6516                                | 1.6516                                 | n <sub>d</sub> |
|                       | @Wavelength 587.6 nm                  | @Wavelength 587.6 nm                   |                |
|                       | 1.65425                               | 1.65425                                | n <sub>e</sub> |
|                       | @Wavelength 546.1 nm                  | @Wavelength 546.1 nm                   |                |
| Transmission, Visible | 94.6 %                                | 94.6 %                                 |                |
|                       | @Thickness 10.0 mm, Wavelength 380 nm | @Thickness 0.394 in, Wavelength 380 nm |                |
|                       | 98.1 %                                | 98.1 %                                 |                |

| Optical Properties | Metric<br>@Thickness 10.0 mm,<br>Wavelength 405 nm | English<br>@Thickness 0.394 in,<br>Wavelength 405 nm | Comments |
|--------------------|--|--|----------|
|                    | 99.4 %   | 99.4 %   |          |
|                    | @Thickness 10.0 mm,<br>Wavelength 460 nm           | @Thickness 0.394 in,<br>Wavelength 460 nm            |          |
|                    | 99.8 %   | 99.8 %   |          |
|                    | @Thickness 10.0 mm,<br>Wavelength 580 nm           | @Thickness 0.394 in,<br>Wavelength 580 nm            |          |
|                    | 99.8 %   | 99.8 %   |          |
|                    | @Thickness 10.0 mm,<br>Wavelength 700 nm           | @Thickness 0.394 in,<br>Wavelength 700 nm            |          |
| IR Transmittance   | 54.6 %   | 54.6 %   |          |
|                    | @Thickness 10.0 mm,<br>Wavelength 2500 nm          | @Thickness 0.394 in,<br>Wavelength 2500 nm           |          |
|                    | 99.2 %   | 99.2 %   |          |
|                    | @Thickness 10.0 mm,<br>Wavelength 1530 nm          | @Thickness 0.394 in,<br>Wavelength 1530 nm           |          |
| UV Transmittance   | 4.4 %  | 4.4 %  |          |
|                    | @Thickness 10.0 mm,<br>Wavelength 300 nm           | @Thickness 0.394 in,<br>Wavelength 300 nm            |          |
|                    | 50.9 %   | 50.9 %   |          |
|                    | @Thickness 10.0 mm,<br>Wavelength 334 nm           | @Thickness 0.394 in,<br>Wavelength 334 nm            |          |
|                    | 91 %   | 91 %   |          |
|                    | @Thickness 10.0 mm,<br>Wavelength 370 nm           | @Thickness 0.394 in,<br>Wavelength 370 nm            |          |

| Chemical Properties        | Metric | English | Comments |
|----------------------------|--------|---------|----------|
| Acid Class, SR             | 53.3   | 53.3    |          |
| Alkali Class, AR           | 3.3    | 3.3     |          |
| Stain Resistance Class, FR | 2.0    | 2.0     |          |

| Descriptive Properties      | Value | Comments |
|-----------------------------|-------|----------|
| B                           | 0     |          |
| Climatic Resistance Test CR | 3     |          |
| HG                          | 5     |          |

| <b>K (10-6mm<sup>2</sup>/N)</b><br>Descriptive Properties | <b>1.65</b><br>Value | Comments |
|---|----------------------|----------|
| Phosphate Resistance PR                                   | 4.3                  |          |
| T1013.0 (Å°C)   | 626                  |          |
| T107.6 (Å°C)  | 716                  |          |

## Contact Songhan Plastic Technology Co.,Ltd.

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