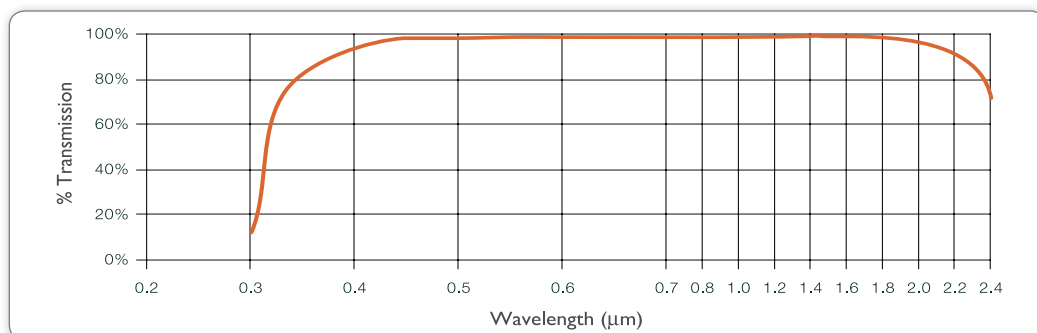


## L-LAL12

Internal Transmission Curve  
(10mm thickness)



## Optical Properties

| Refractive Indices |                |       |
|--------------------|----------------|-------|
| Index              | $\lambda$ (nm) | Value |
| $n_{2325.4}$       | 2325.4         | 1.64  |
| $n_{1970.1}$       | 1970.1         | 1.646 |
| $n_{1529.6}$       | 1529.6         | 1.653 |
| $n_{1060.0}$       | 1060.0         | 1.660 |
| $n_t$              | 1014.0         | 1.661 |
| $n_s$              | 852.1          | 1.664 |
| $n_r$              | 706.5          | 1.668 |
| $n_c$              | 656.3          | 1.670 |
| $n_{c'}$           | 643.8          | 1.671 |
| $n_{He-Ne}$        | 632.8          | 1.671 |
| $n_D$              | 589.3          | 1.674 |
| $n_d$              | 587.6          | 1.674 |
| $n_e$              | 546.1          | 1.677 |
| $n_F$              | 486.1          | 1.683 |
| $n_{F'}$           | 480.0          | 1.683 |
| $n_g$              | 435.8          | 1.689 |
| $n_h$              | 404.7          | 1.695 |
| $n_i$              | 365.0          | 1.704 |

| Dispersion  |       |
|-------------|-------|
| Abbe Number | Value |
| $v_d$       | 55.00 |
| $v_e$       | 55.23 |

| Coloring                   |       |
|----------------------------|-------|
| $\lambda_{80} / \lambda_5$ | Value |
|                            | 37/30 |

| Standard Coatings |                                   |           |
|-------------------|-----------------------------------|-----------|
| Coating           | $\lambda$ Range ( $\mu\text{m}$ ) | $R_{MAX}$ |
| MLBB-UVA          | 350 - 600                         | < 1.0%    |

## Other Properties

| RoHS Compliance                          |        |
|--|--------|
| Lead (Pb)                                | < 2ppm |
| Mercury (Hg)                             | < 2ppm |
| Cadmium (Cd)                             | < 2ppm |
| Hexavalent Chromium ( $\text{Cr}^{6+}$ ) | < 2ppm |
| PBB                                      | < 2ppm |
| PBDE                                     | < 2ppm |

| Mechanical Properties |                        |
|-----------------------|------------------------|
| Density               | 3.48 g/cm <sup>3</sup> |
| Hardness              | 600 knoop              |
| Young's Modulus       | 10,960 GPa             |

| Thermal Properties |                                       |
|--------------------|---------------------------------------|
| $T_g$              | 562 °C                                |
| CTE                | $7.6 \times 10^{-6} / ^\circ\text{C}$ |
| dn/dT              | $2.6 \times 10^{-6} / ^\circ\text{C}$ |

| Equivalent Glasses |        |
|--------------------|--------|
| Manufacturer       | Glass  |
| CDGM               | D-LaK5 |

LightPath® lenses that have a 356xxx prefix use the L-LAL12 glass.

**LightPath**<sup>®</sup>  
TECHNOLOGIES