



See page 13 for material specification and geometric tolerance

KE050 - Biconvex Lenses Ø 5,00 mm.

| Code | Material | D (mm) | d (mm) | S (mm) | t (mm) | h (mm) | Lambda (nm) | EFFL (mm) | BFL (mm) |
|-----------------|----------|--------|--------|--------|--------|--------|-------------|-----------|----------|
| KE05001B | PC | 5,00 | 4,50 | 0,25 | 3,00 | 2,45 | 587 | 10,0 | 8,1 |
| KE05002B | SAN | 5,00 | 4,50 | 0,25 | 3,00 | 2,45 | 587 | 10,0 | 8,1 |
| KE05003B | PC-IR | 5,00 | 4,50 | 0,25 | 3,00 | 2,45 | 850 | 10,3 | 8,3 |
| KE05004B | PMMA | 5,00 | 4,50 | 0,25 | 3,00 | 2,45 | 587 | 11,9 | 9,8 |
| KE05005B | PMMA-IR | 5,00 | 4,50 | 0,25 | 3,00 | 2,45 | 850 | 12,0 | 10,0 |

KE055 - Biconvex Lenses Ø 5,50 mm.

| Code | Material | D (mm) | d (mm) | S (mm) | t (mm) | h (mm) | Lambda (nm) | EFFL (mm) | BFL (mm) |
|-----------------|----------|--------|--------|--------|--------|--------|-------------|-----------|----------|
| KE05501B | PC | 5,50 | 5,00 | 0,25 | 3,00 | 2,40 | 587 | 11,0 | 9,0 |
| KE05502B | SAN | 5,50 | 5,00 | 0,25 | 3,00 | 2,40 | 587 | 11,0 | 9,0 |
| KE05503B | PC-IR | 5,50 | 5,00 | 0,25 | 3,00 | 2,40 | 850 | 11,3 | 9,3 |
| KE05504B | PMMA | 5,50 | 5,00 | 0,25 | 3,00 | 2,40 | 587 | 13,1 | 11,0 |
| KE05505B | PMMA-IR | 5,50 | 5,00 | 0,25 | 3,00 | 2,40 | 850 | 13,3 | 11,2 |

KE060 - Biconvex Lenses Ø 6,00 mm.

| Code | Material | D (mm) | d (mm) | S (mm) | t (mm) | h (mm) | Lambda (nm) | EFFL (mm) | BFL (mm) |
|-----------------|----------|--------|--------|--------|--------|--------|-------------|-----------|----------|
| KE06001B | PC | 6,00 | 5,50 | 0,25 | 3,00 | 2,34 | 587 | 12,0 | 10,0 |
| KE06002B | SAN | 6,00 | 5,50 | 0,25 | 3,00 | 2,34 | 587 | 12,0 | 10,0 |
| KE06003B | PC-IR | 6,00 | 5,50 | 0,25 | 3,00 | 2,34 | 850 | 12,3 | 10,3 |
| KE06004B | PMMA | 6,00 | 5,50 | 0,25 | 3,00 | 2,34 | 587 | 14,3 | 12,1 |
| KE06005B | PMMA-IR | 6,00 | 5,50 | 0,25 | 3,00 | 2,34 | 850 | 14,5 | 12,3 |

KE065 - Biconvex Lenses Ø 6,50 mm.

| Code | Material | D (mm) | d (mm) | S (mm) | t (mm) | h (mm) | Lambda (nm) | EFFL (mm) | BFL (mm) |
|-----------------|----------|--------|--------|--------|--------|--------|-------------|-----------|----------|
| KE06501B | PC | 6,50 | 5,00 | 0,75 | 4,50 | 2,95 | 587 | 6,5 | 3,5 |
| KE06502B | SAN | 6,50 | 5,00 | 0,75 | 4,50 | 2,95 | 587 | 6,5 | 3,5 |
| KE06503B | PC-IR | 6,50 | 5,00 | 0,75 | 4,50 | 2,95 | 850 | 6,7 | 3,7 |
| KE06504B | PMMA | 6,50 | 5,00 | 0,75 | 4,50 | 2,95 | 587 | 7,7 | 4,5 |
| KE06505B | PMMA-IR | 6,50 | 5,00 | 0,75 | 4,50 | 2,95 | 850 | 7,8 | 4,6 |

| | | PC | SAN | PC-IR | PMMA | PMMA-IR |
|---|-------|-------|--------|-------|-------|---------|
| Transmission Factor for transparent material | % | 89 | 89 | - | 92 | - |
| Refractive index | | 1.586 | 1.565 | 1.586 | 1.49 | 1.49 |
| Haze for transparent material | % | < 0.8 | < 0.8 | - | < 0.5 | - |
| Tensile modulus | MPa | 2400 | 3700 | 2400 | 3300 | 3300 |
| Yeld stress | MPa | 65* | 70* | 65* | 77** | 77** |
| Yeld strain | MPa | 6.0* | > 2.0* | 6.0* | 5.5** | 5.5** |
| Glass transition temperature | °C | 145 | 108 | 148 | 117 | 117 |
| Temperature of deflection under load (1.8 Mpa) | °C | 124 | 101 | 125 | 98 | 98 |
| Temperature of deflection under load (0.45 Mpa) | °C | 137 | 103 | 137 | 103 | |
| Density | Kg/m3 | 1200 | 1070 | 1200 | 1190 | 1190 |

* 50 mm/min

** 5 mm/min

Geometric Tolerance

t $t \pm 0,05\%$

R $R \pm 3\%$

D $D \begin{matrix} +0,00 \\ -0,1 \end{matrix}$

EFFL $EFFL \pm 5\%$

BFL $BFL \pm 5\%$