

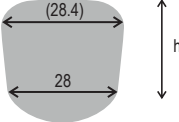
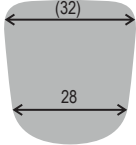

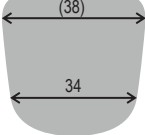
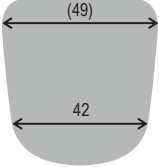
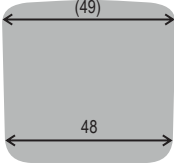
BETTER HOMOGENEITY, BETTER TRANSMISSION

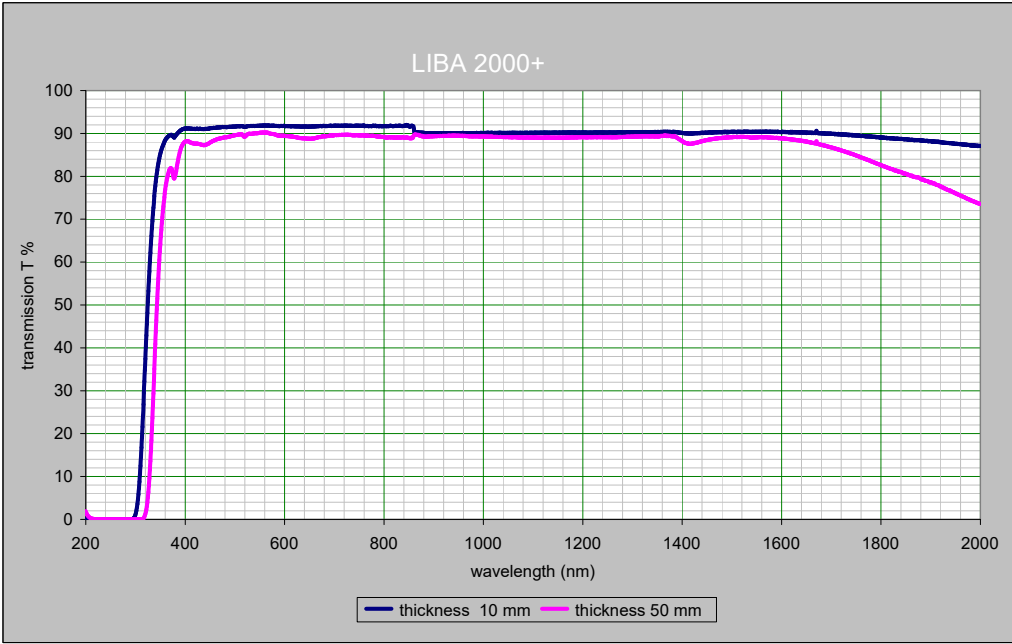
# Glass Rods *LIBA 2000+*

PRECIOSA

# Glass Rods LIBA 2000+

*Glass Rods LIBA with optical properties are used by leading international lens manufacturers. Our optical rods find their use mainly in the automotive industry.*

		height in mm	quantity in bundle	weight of rod in kg
V 28 EXTRA THIN		22	15	1.3
V 28 THIN		23 24 25	14 13 12	1.4 1.5 1.7
V 28 MEDIUM		27 30 32	11 10 9	1.8 2.0 2.2
V 35 THICK		27 31 35	8 7 6	2.5 2.9 3.3
V 42 EXTRA THICK		37 41 46 51	5 4.5 4 3.5	4.0 4.4 5.0 6.0
"50" SUPER		46	3	6.6



BETTER HOMOGENEITY, BETTER TRANSMISSION

# Glass Rods LIBA 2000+

Glass quality

Abbe's number	vd=58.852, ve=58.627
Hydrolytic class	HGB 3
Alkaline class according to ČSN ISO 695	A2
Acidic class according to DIN 12116	1.

Packaging

Standard length of rod Standard package weight (one bundle)	1120 ± 10 mm 20 kg
Transport package: - bundles in cases on wooden pallet (jewelry quality) - free loaded in one case on wooden pallet (optical quality)	600 kg ntto, 650 kg btto 700 kg ntto, 750 kg btto

Informative composition in %

SiO <sub>2</sub>	68	CaO	6
Na <sub>2</sub> O	11	BaO	4
K <sub>2</sub> O	6	ZnO	3

Physical and chemical characteristics

Specific gravity	ρ	2 580 + 20 kg/m <sup>3</sup>
Coefficient of expansion	α	9.4 ± 0.4 · 10 <sup>-6</sup> K <sup>-1</sup>
Index of refraction	n <sub>D</sub>	1.5200 + 0.0010
Softening point (10 <sup>7.65</sup> dPa s)	t <sub>L</sub>	686 ± 10 °C
Transformation point (10 <sup>13.3</sup> dPa s)	t <sub>g</sub>	504 ± 10 °C
Deformation point (10 <sup>11</sup> dPa s)	t <sub>d</sub>	568 ± 10 °C



## PRECIOSA Traditional Czech Glass

A member of the Preciosa Group

Preciosa Group is a global leader in products manufactured from crystal. From the world famous Czech Beads and Crystal Components used in fashion industry, to tailor made Lighting projects for luxury hotels, royal palaces and yachts, the true craftsmanship of crystal production has been present in Bohemia since 16th century.

[Preciosa-Ornela.com](http://Preciosa-Ornela.com)