



3.7. Gradal[®] Top 1.6

Product Specifications

Material

- MR8, Hi-Index plastic
- $n_d=1.595$
- Abbe 42
- Specific Gravity 1.30 g_{ccm}
- 100% UV-A and UV-B Protection

Technical Processing Notes

- Gradal[®] Top 1.6 lenses can be processed like any other quality Hi-Index progressive lens. Zeiss recommends a minimum center thickness of 1.6 mm. Gradal[®] Top 1.6 lenses of this minimum thickness fulfill the FDA standards of impact resistance.
- After blocking wait 20 minutes to allow lenses to cool before generating.
- Zeiss recommends de-blocking by cold knock-off or block ejector, but not by hot water.
- To tint Gradal[®] Top 1.6 lenses a tintable back side hard coating must be applied.

Hard Coating

Zeiss Gradal[®] Top 1.6 semi-finished lens blanks feature a factory applied, scratch resistant, index matched hard coating. This hard coating is non-tintable.

Delivery Range

- Sph +10.00D to -10.00D
- Cyl up to -6.00D (total power not to exceed -10.00D)
- Adds 0.75D to 3.50D
- Prism up to 3.00D in addition to equithin



Lens Data Chart



Base Curve	Nominal Diameter [mm]	Usable Diameter [mm]	Decentr. [mm]	True Curve [1.53]	CX Radius [mm]	Back Curve [1.53]	Center Thickness [mm]	Edge Thickness [mm]
2.70	75 round	75 oval	2.5	2.53	209.67	6.02	7.9	12.9
3.70	75 round	80 round*	2.5	3.45	153.60	6.02	9.2	12.5
4.70	75 round	80 round*	2.5	4.35	121.84	5.00	10.3	10.8
5.50	75 round	80 round*	2.5	4.95	107.10	6.02	8.3	9.4
6.30	75 round	80 round*	2.5	5.56	95.29	6.02	9.1	9.0
7.10	75 round	80 round*	2.5	6.32	83.86	6.02	10.3	8.9
7.90	75 round	80 round*	2.5	7.10	74.62	6.02	11.3	8.9
8.90	75 round	75 oval	2.5	7.93	66.85	6.02	11.1	8.5
9.90	75 round	75 oval	2.5	8.89	59.61	6.02	10.5	6.1

* The diameter of add powers 3.25 D and 3.50 D is limited to 75mm oval

Zeiss Gradal® lenses are designed to work perfectly with a thickness reducing prism. To achieve the thinnest and lightest lenses possible, Zeiss recommends a base down (270°) prism in the following graduation depending on the power of the addition.

Addition [D]	0.75 1.00	1.25	1.50 1.75	2.00	2.25 2.50	2.75	3.00 3.25	3.50
Prism [D]	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25

Permanent Engravings

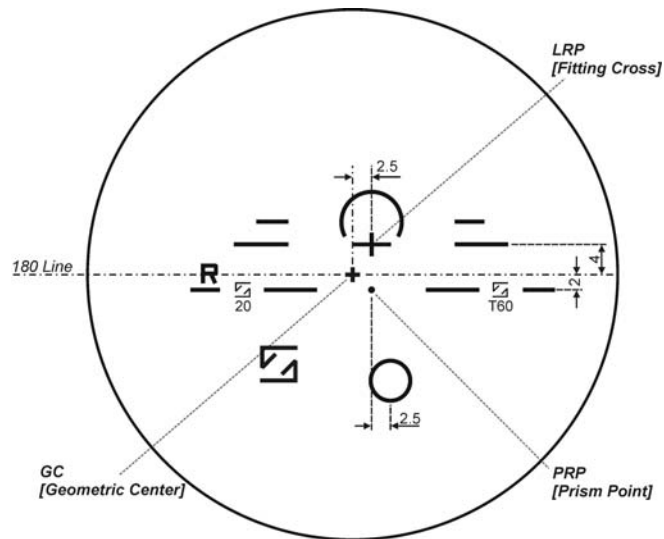
	Nasal Engraving	Temple Engraving
Gradal® Top 1.6	 T60	 07-35



Markings of the Semi-Finished Lens

Gradal® Top 1.6 features a round lens blank. For processing purposes the blank is marked with a cross at the geometric center and edge axis locators.

Please note that Zeiss Gradal® Top 1.6 lenses, if they are not to be cribbed at the generator, should be blocked on the geometric center to avoid producing unwanted prism during the fining operation.





**Base Curve Chart
Gradal® Top 1.6**

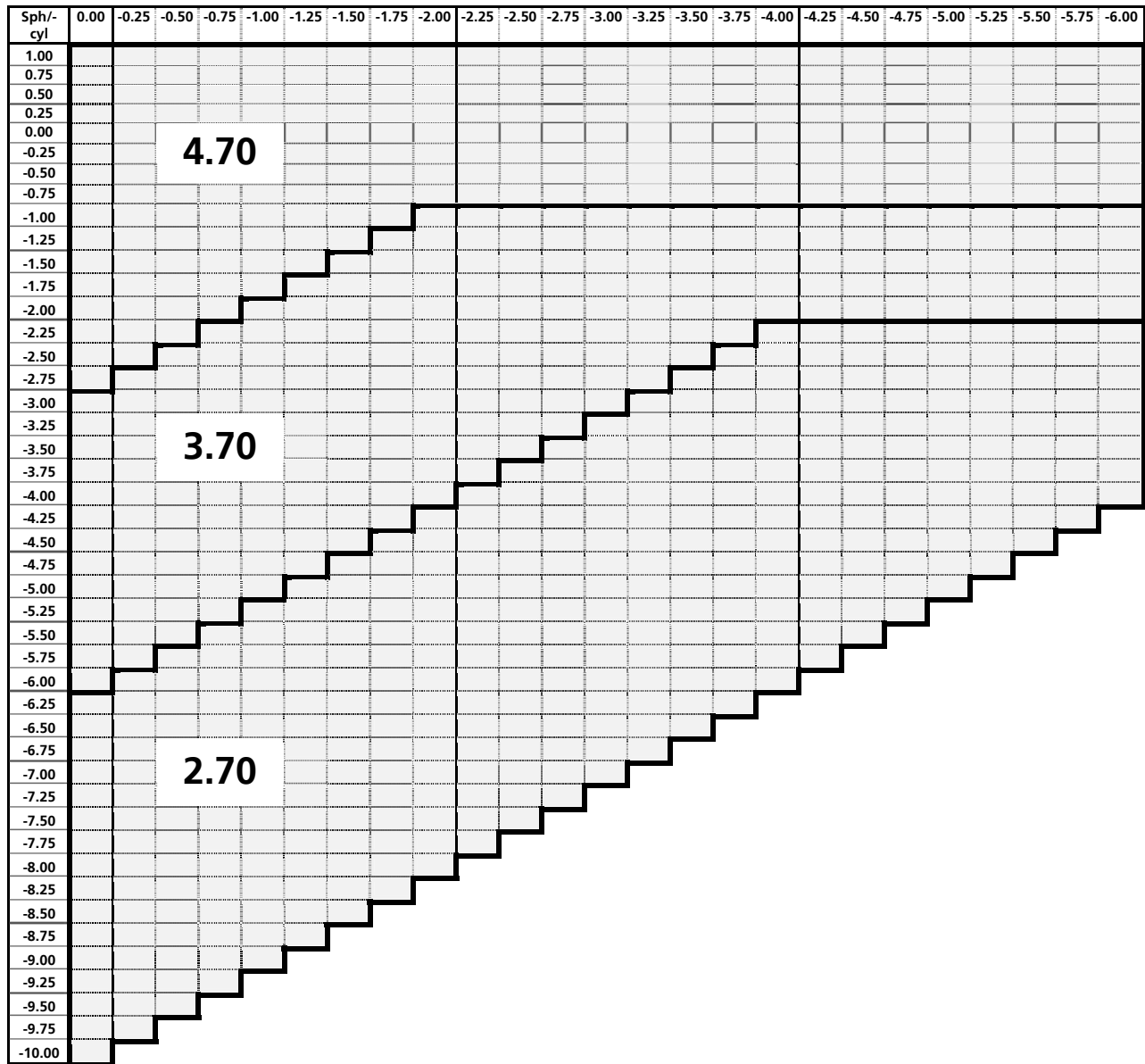
Sph/ cyl	0.00	-0.25	-0.50	-0.75	-1.00	-1.25	-1.50	-1.75	-2.00	-2.25	-2.50	-2.75	-3.00	-3.25	-3.50	-3.75	-4.00	-4.25	-4.50	-4.75	-5.00	-5.25	-5.50	-5.75	-6.00
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The Base Curve Chart continues on next page.

- Zeiss highly recommends conforming to the base curve for a specific R_x power as displayed in the Base Curve Chart for Gradal® Top 1.6 lenses. Picking another base curve for a certain power will decrease the imaging performance and may impact adaptation and patient satisfaction.
- Please be also aware that the base curve and the add power determine the nasal inset of the near portion. A base curve other than recommended restricts the usability of the intermediate zone and near portion due to a mismatch of distance power, add and required inset.



Base Curve Chart (cont'd) Gradal® Top 1.6



- Zeiss highly recommends conforming to the base curve for a specific Rx power as displayed in the Base Curve Chart for Gradal® Top 1.6 lenses. Picking another base curve for a certain power will decrease the imaging performance and may impact adaptation and patient satisfaction.
- Please be also aware that the base curve and the add power determine the nasal inset of the near portion. A base curve other than recommended restricts the usability of the intermediate zone and near portion due to a mismatch of distance power, add and required inset.