



## 3.5. Gradal<sup>®</sup> Top 1.59 Poly Transitions<sup>®</sup> VI Gray

### Product Specifications

#### Material

- Polycarbonate with Transitions<sup>®</sup> VI photochromic technology by Transitions<sup>®</sup>
- $n_d=1.586$
- Abbe 30
- Specific Gravity 1.20 <sup>g</sup>/<sub>ccm</sub>
- 100% UV-A and UV-B Protection

#### Technical Processing Notes

- Gradal<sup>®</sup> Top 1.59 Poly Transitions<sup>®</sup> VI Gray lenses can be processed like any other quality polycarbonate progressive. Zeiss recommends a minimum center thickness of 1.2 mm. Gradal<sup>®</sup> Top 1.59 Poly Transitions<sup>®</sup> VI Gray lenses of this minimum center thickness fulfill the FDA standards of impact resistance.
- After blocking wait 30 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 retain the photochromic properties Gradal<sup>®</sup> Top 1.59 Poly Transitions<sup>®</sup> VI Gray lenses should not be tinted.

#### Hard Coating

Zeiss Gradal<sup>®</sup> Top 1.59 Transitions<sup>®</sup> VI Gray semi-finished lens blanks feature a factory applied, scratch resistant hard coating that is specifically optimized for photochromic lenses.

#### Delivery Range

- Sph +4.50D to -6.00D
- Cyl up to -4.00D (total power not to exceed -6.00D)
- Adds 1.00D to 3.00D
- Prism up to 3.00D in addition to equithin





### Lens Data Chart

Base Curve	Actual/Useable Diameter [mm]	Decentr. [mm]	True Curve [1.53]	CX Radius [mm]	Back Curve [1.53]	Center Thickness [mm]	Edge Thickness [mm]
3.70	75/80 round	2.5	3.37	157.27	6.45	9.9	12.6
4.70	75/80 round	2.5	4.23	125.30	6.45	11.3	12.8
5.50	75/80 round	2.5	4.89	108.38	6.45	8.9	9.8
6.30	75/80 round	2.5	5.52	96.01	6.45	9.8	9.9
7.10	75/80 round	2.5	6.27	84.53	6.45	11.1	10.1

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.

<b>Addition [D]</b>	1.00	1.25	1.50 1.75	2.00	2.25 2.50	2.75	3.00
<b>Prism [D]</b>	0.50	0.75	1.00	1.25	1.50	1.75	2.00

### Permanent Engravings

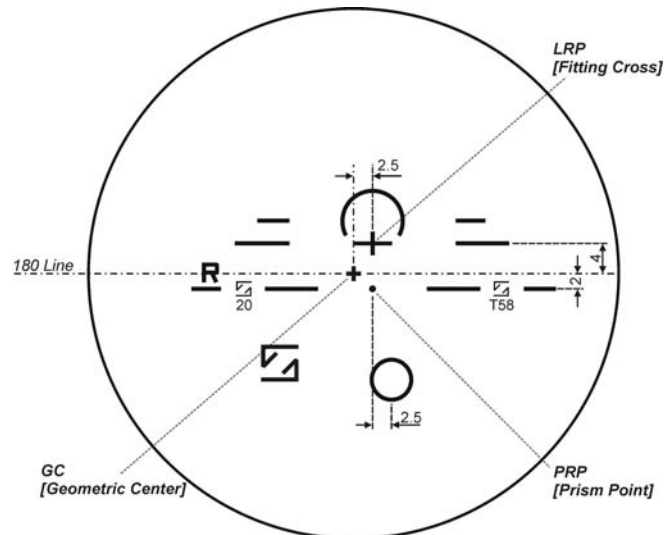
	Nasal Engraving	Temple Engraving
<b>Gradal® Top 1.59 Poly Transitions® VI Gray</b>	 T58	 10-30



## Markings of the Semi-Finished Lens

Gradal<sup>®</sup> Top 1.59 Poly Transitions<sup>®</sup> VI Gray 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<sup>®</sup> Top 1.59 Poly Transitions<sup>®</sup> VI Gray 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 1.59 Poly Transitions® VI Gray**

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
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- Zeiss highly recommends conforming to the base curve for a specific R<sub>x</sub> power as displayed in the Base Curve Chart for Gradal® Top 1.59 Poly Transitions® VI Gray. 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.