

## ZEISS Single Vision Aphal

### Flattened lens design for high plus powers

ZEISS Single Vision Aphal 1.5 is a plastic, aspheric lenticular lens specially designed for high hyperopia and aphakia. With a refractive index of 1.501, ZEISS Single Vision Aphal is the optimum solution: it is light, has a high Abbe number, i. e. low dispersion, and provides excellent visual quality thanks to the asphere in its aperture.

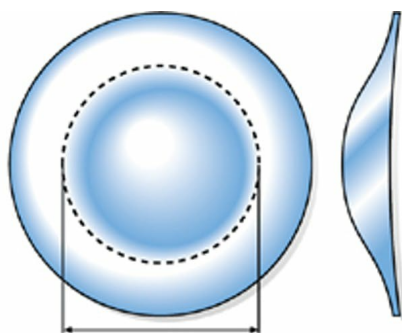


Diagram showing the structure of a ZEISS Single Vision Aphal 1.5

Hyperopic patients requiring high plus powers are very demanding: they want lenses which are not only as light as possible in order to reduce the weight of their spectacles, but which also provide them with optimum visual quality. This means that the pronounced astigmatic error typical of high plus powers and which wearers find particularly irritating must be corrected to the greatest possible extent. High index plastic material would, of course, make it possible to produce thinner lenses, but increased dispersion would severely impair visual comfort.

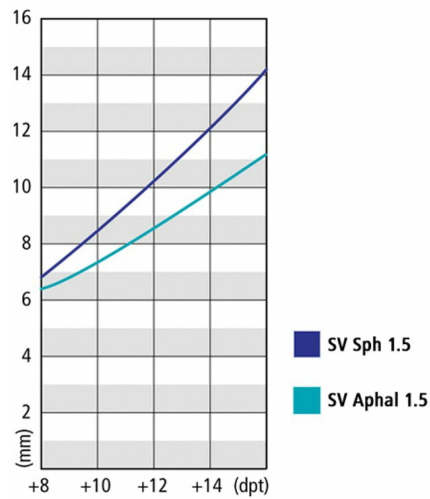
## The Surface Design

The special benefit of ZEISS Single Vision Aphal 1.5 lenses is their aspheric front surface specially designed for high plus powers. It features a curved continuous transition zone between the aperture and the flattened margin (flattened margin asphere).

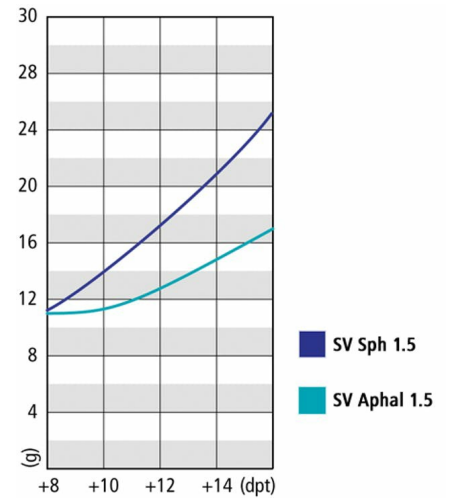
The aspheric surface design of the aperture provides the excellent visual quality also associated with the aspheric design of [> ZEISS Single Vision Lenses](#).

## Benefits of the Aspheric Design

The special aspheric design also makes the lens flatter. This reduces the "shape factor" or effective magnification of the lens, i. e. the wearer's eyes look less magnified. Apart from its optical and cosmetic benefits, the asphere also results in a weight reduction compared to ZEISS Single Vision Sph 1.5 or glass lenses and hence also in enhanced wearing comfort. The thinner marginal zone allows standard frames to be glazed without difficulty.



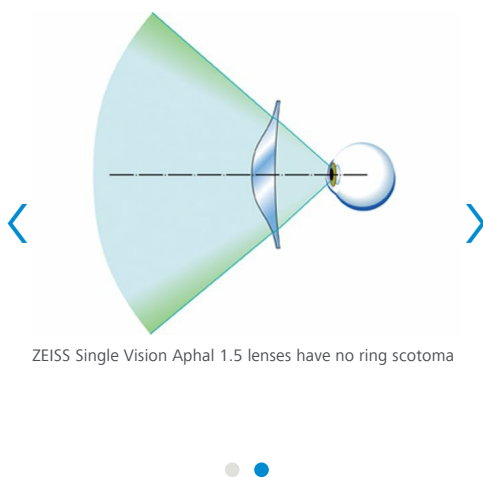
Comparison of centre thickness for ZEISS Single Vision Sph 1.5 and ZEISS Single Vision Aphil 1.5 dia. 55



Weight comparison for ZEISS Single Vision Sph 1.5 and ZEISS Single Vision Aphil 1.5 dia. 55

## The benefits for the wearer

- ✓ Large, unimpaired visual field (no ring scotoma)
- ✓ Thinner lenses: up to 10% thinner than [ZEISS Single Vision Sph 1.5](#)
- ✓ Lightweight lenses: up to 50% lighter than a glass lens with the same refractive index ([ZEISS Single Vision Sph Mineral 1.5](#))
- ✓ Up to 13% lighter than [ZEISS Single Vision Sph 1.5](#)
- ✓ Outstanding visual quality thanks to asphere in the aperture
- ✓ Flatter curvature than non-aspheric or non-atoric lenses
- ✓ Eyes are less magnified than with traditional lenses
- ✓ Flat marginal zone allows glazing of standard frames



### Conventional Lenticulars

In standard lenticular lenses, in both the plus and minus ranges, there is an abrupt transition between the aperture and the margin. This leads to a sudden change in the dioptric power at the optical dividing line, resulting in a ring-shaped gap in the visual field ("ring scotoma") which markedly impairs orientation.

### The Margin Asphere

The margin asphere in ZEISS Single Vision Aphil 1.5 lenses prevents ring scotoma, as the dioptric power changes continuously between the aperture and the edge of the lens. The wearer enjoys a full field of view and unimpaired orientation. The lenses have no ring scotoma. Although acuity is reduced in the peripheral zone of the lens due to the margin asphere, it is sufficient for peripheral vision.

## Our Recommendations

- ✓ Recommended power range: high hyperopia from sph +8.00 D to sph +20.00 D
- ✓ Fitting in accordance with "centre of rotation" requirement (optical axis of lens runs through eye's optical centre of rotation) as for all aspheric and atoric lenses

✓ available with > [DuraVision® Platinum](#) for clear lenses

✓ A second pair of spectacles is always recommended for people with pronounced hyperopia

ZEISS is one of the world's leading manufacturers of spectacle lenses, and is committed to delivering maximum precision and comfort. ZEISS designs and produces lenses, instruments and measurement systems, as well as retail concepts and technology services that continue to raise the bar in vision care.



### Contact us to get started

ZEISS Customer Service

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[Email](#)



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