

Instructions for use Rodenstock Single vision lenses with accommodation support For opticians

Table of contents

| | | |
|-----|--|---|
| 1 | Intended use..... | 1 |
| 1.1 | Purpose & target group..... | 1 |
| 1.2 | Design of single vision lenses with accommodation support..... | 1 |
| 1.3 | Further information | 2 |
| 2 | Restrictions of use & foreseeable misuse | 2 |
| 3 | Correct use..... | 3 |
| 4 | Risks & side effects | 4 |

Instructions for use Rodenstock Single vision lenses with accommodation support For opticians

When selling medical products, the adapter, hereinafter referred to as the optician, is obliged to inform the end user, hereinafter referred to as the spectacle wearer, about restrictions of use, preferably in writing.

Convince with your professional competence by informing your customer about relevant restrictions of use during your individual and personal consultation.

You can find important information about Rodenstock lenses at any time at

<https://www.rodenstock.de/de/de/instructions-for-use.html>

1 Intended use

1.1 Purpose & target group

- Single vision lenses with accommodation support are spectacle lenses used to correct customer-specific refractive errors such as hyperopia (long-sightedness), myopia (short-sightedness), astigmatism and positional errors of the eyes.
Additionally, solutions for special problems (e.g. aniseikonia) can be offered.
- As a rule, single vision lenses with accommodation support are used for the far distance correction of spectacle wearers who are not age-sighted or for spectacle wearers with beginning presbyopia.
- Single vision lenses with accommodation support offer spectacle wearers a wide field of vision for far vision and additional accommodation support for intermediate distance and near vision.

1.2 Design of single vision lenses with accommodation support

1

Far vision area

Sharp vision for the far distance (depending on accommodation ability also up to near).

2

Vision area with accommodation support for near vision

By slightly increasing the power towards the bottom, relaxed vision in the near and intermediate vision area without using the full necessary accommodation.



Figure 1: Schematic structure of a single vision lens with accommodation support

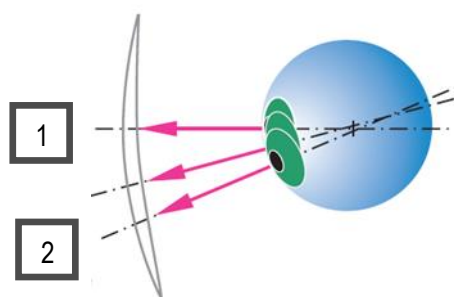


Figure 2: Vertical deflection of the gaze when looking through a single vision lens with accommodation support

1.3 Further information

- The basis for optimal correction with a single vision lens with accommodation support is the distance refraction. Due to the finite distance in the refraction room, it is recommended to perform distance refraction when looking towards infinity.
- Single vision lenses with accommodation support are intended to be used in pairs in a spectacle frame, i.e. as a combination of right and left lenses in front of the spectacle wearer's eyes.
- The level of accommodation support (0.50 D, 0.80 D and 1.1 D) of single vision lenses with accommodation support depends on the accommodation capacity and intended use of the spectacle wearer.
- Single vision lenses with accommodation support are optimised for the following wearing situations (variable tilt situation depending on e.g. base curve, frame, centre thickness reduction, individual parameters):
Possible value ranges for single vision lenses with accommodation support with individual parameters that can be ordered:
 Cornea vertex distance (CVD): 5 - 30mm,
 Pupil distance (PD): 20 - 40mm,
 Face form angle (FFA): -5° to 15°
 Pantoscopic tilt (PT): -5° - 20°
Single vision lenses with accommodation support with orderable PD:
 Pupil distance (PD): 20 - 40mm
 For products where the individual parameters cannot be ordered, Rodenstock recommends fitting the frame for a face form angle of approx. 5°, pantoscopic tilt of approx. 8° (for spectacle lenses fitted according to the reference point requirement), cornea vertex distance of approx. 13mm. These products assume a standard PD of 32 mm.
Free-form single vision lenses with accommodation support of the old generation are calculated for a fixed tilt situation and "central" centring.
- Single vision lenses with accommodation support meet the criteria for roadworthiness prescribed by EN ISO 14889 and 8980-3:2013. They are therefore suitable for road use and driving in traffic and operating machinery.
- The satisfaction guarantee for Rodenstock single vision lenses with accommodation support is only valid for the described intended use and with proper application.

2 Restrictions of use & foreseeable misuse

- Single vision lenses with accommodation support are not suitable for presbyopic spectacle wearers. Progressive lenses are more suitable for this target group.
- Special sports single vision or sports progressive lenses are better suited for higher curved frames with higher face form angles.
- The points mentioned for restrictions of use and foreseeable misuse are only examples and do not claim to be complete. Reference is made to the contents of the chapter "Intended use" and "Correct use".

3 Correct use

- For the selection of the correct type of single vision lens with accommodation support and correct centring, anatomical fitting of the frame to the face of the wearer is essential. The individual parameters of the wearing situation - pupil distance, cornea vertex distance, partly pantoscopic tilt and face form angle - should be measured and the appropriate single vision lens type with accommodation support selected. To ensure that the full optical performance of the lens is maintained, the wearing situation must not be changed afterwards by the optician or the spectacle wearer.

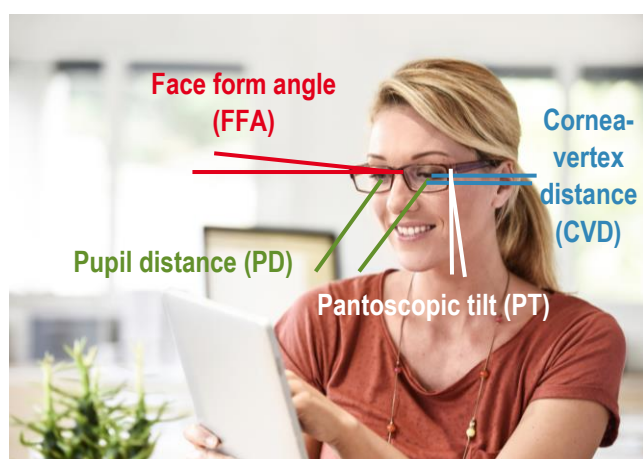


Figure 3: Individual parameters of the wearing situation

- All B.I.G. Exact and B.I.G. Norm single vision lenses with accommodation support must be centred in such a way that the centring point coincides with the centre of the pupil in the habitual head and body posture and zero viewing direction.
- All single vision lenses with accommodation support up to Generation 2 must be centred so that the optical axis of the lens passes through the eye rotation point Z' (eye rotation point requirement).
- The age of the customer and their visual requirements must be taken into account when selecting the most suitable accommodation support for the spectacle wearer. Ideally, the customer should simply try out the effects of different lens variants using a lens holder.
- When determining the centring, the minimum grinding height of 18 mm and minimum distances to the upper edge of the frame (position of the centring cross + 8 mm) must be observed. For further information see Rodenstock product catalogue and Rodenstock Tips & Technology Lenses.
- Single vision lenses with accommodation support are considered to be effective variation lenses with a reference point in the sense of EN ISO 21987:2017. The products are checked for tolerance in the reference point according to ISO 8980-2 before delivery to the optician. If the measured values of the lens in the reference point far distance correspond to the verification values on the lens bag, taking into account the tolerance, the lens is perfect for fullcorrection in the wearing situation.
- All single vision lenses with accommodation support are provided with permanent markings (engravings). These serve to identify the manufacturer and, in some cases, the type of lens, as well as to reconstruct the reference point of distance. The engravings are usually only visible when the lens is held against the light at a light-dark edge.
- Single and repeat orders of single vision lenses are always possible. When ordering single lenses, it is strongly recommended to know the values of the counter lens and to include them in the order so that they can be taken into account in the calculation. The pairing of different lens types is a custom-made product. Please note that the base curves, colours and anti-reflective coatings, for example, are not matched.

- Further information on single vision lenses, such as the correct selection of the required product, depending on the requirement profile of the wearer, can be found in the current Rodenstock consultation programme and Rodenstock Tips & Technology Lenses.

4 Risks & side effects

- For single vision lenses with accommodation support, which are adjusted according to the eye rotation point requirement, a main viewing direction for the wearing situation is assumed as standard for the calculation. The full accommodation support is effective with these lenses at approx. 16 mm below the centring cross. In habitual head and body posture, the full accommodation support acts correspondingly deeper in the lens. If the actual viewing direction deviates from the standard main viewing direction, there may be deviations in the effect when looking at near distance. The same also applies when changing from single vision lenses that are adjusted according to the eye rotation point requirement to single vision lenses that are adjusted according to reference point requirement.
- If the centring deviates from the fitting recommendation, the single vision lenses with accommodation support could be ground too high or too deep in the glasses. If the centring is too deep, it could be that the increase in power cannot be used because it is possibly too far down in the lens. If the centring is too high, the earlier increase in power could cause blur of the far or intermediate vision area.

For further information see also “Instructions for use Rodenstock general”.

Contact

Rodenstock GmbH
Elsenheimerstraße 33
80687 Munich
www.rodenstock.com