Instructions for use Rodenstock Near comfort lenses
For opticians

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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 them with your professional competence by also informing your customer of relevant restrictions on use during your individual and personal consultation.
You can find important information on Rodenstock lenses at any time at
https://www.rodenstock.de/de/de/instructions-for-use.html

1 Intended use

1.1 Purpose & target group

- Near comfort lenses are spectacle lenses used to correct customer-specific ametropia such as hyperopia (long-sightedness), myopia (short-sightedness), astigmatism as well as positioning errors of the eyes, in combination with age-specific presbyopia.
- Near comfort lenses offer the wearer, depending on the type selected (e.g. Room, PC, Book), ergonomically comfortably arranged large vision areas for the chosen application and continuously variable sharp vision from room distance to near distance (in contrast, progressive lenses offer continuously variable vision from far to near distance).
- Additionally, solutions for special problems (e.g. aniseikonia) can be offered.

1.2 Design of near comfort lenses

Near comfort lenses can be divided into four areas:

1 **Room vision area**
Area of the lens for sharp vision at finite distance (max. 2.50 m, see also Table 2).

2 **Intermediate vision area**
Area of the lens for sharp vision at intermediate distances, e.g. when working at a computer.

3 **Orientation area**
Area of the lens is for orientation.

4 **Near vision area**
Area of the lens for sharp vision at near distance (usually 40cm).

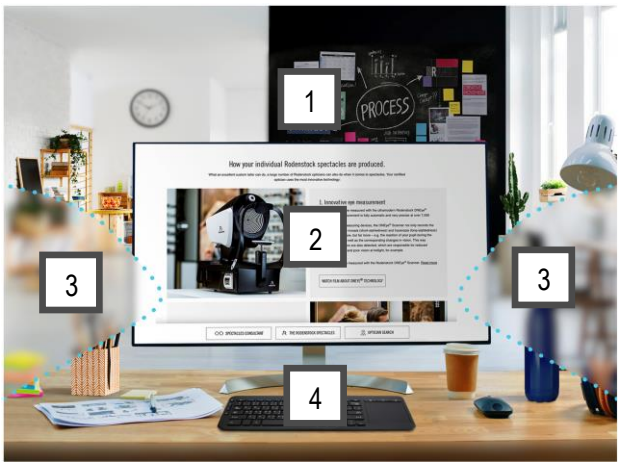

Figure 1: *Schematic structure of a near comfort lens*

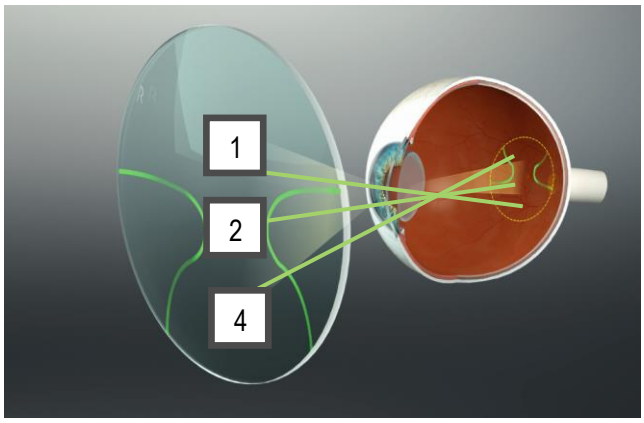

Figure 2*: Vertical deflection of view when looking through a near comfort lens*

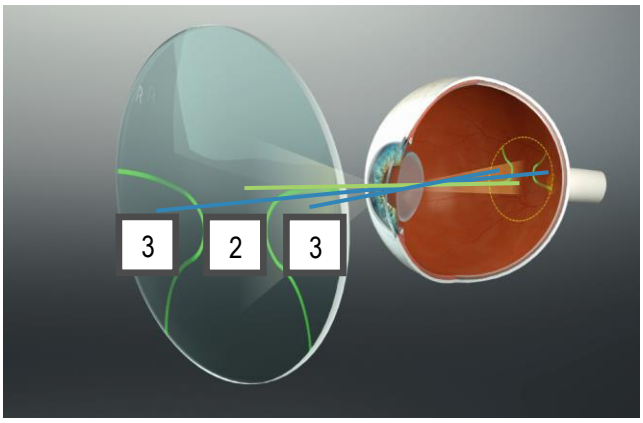

Figure 3: *Horizontal view deflection when looking through a near vision lens at the level of the intermediate vision area*

1.3 Further information

- Depending on the type of near comfort lens and degression, the sizes of the vision areas and possible distances in the lens will vary.

Vision area and room depths using the example of Rodenstock Ergo near-comfort lenses

Figure 4: *Book design type with focus on near distance*

Figure 5*: Design type PC with emphasis on intermediate distance*

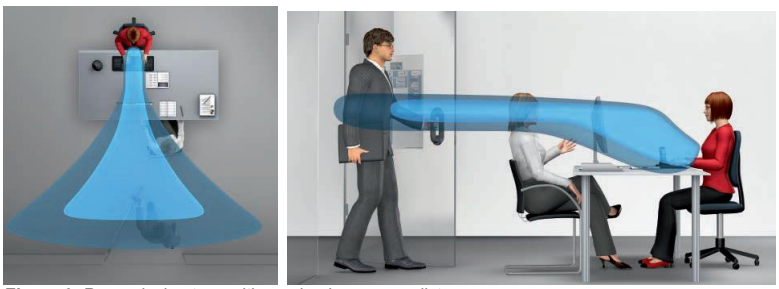

Figure 6: *Room design type with emphasis on room distance*

- The main line of vision of a near comfort lens describes the path of the converging eye from the room vision area via the intermediate vision area to the near vision area. The vieweing points in the room, intermediate and near vision area are adapted to the convergence behaviour and the distance of the object being viewed (inset).
- The difference of the dioptric power of the near and room vision area of near comfort lenses is called degression. The degression describes by how much the dioptric power decreases towards the room area. The degression of Ergo near-comfort lenses depends on the addition ordered.

Addition [D]	**1.25**	**1.50**	**1.75**	**2.00**	**2.25**	**2.50**	**2.75**	**3.00**
Designtyp Book								
Degression [D]	0.7	0.8	0.9	1.1	1.2	1.4	1.6	1.9
Designtyp PC								
Degression [D]	0.8	1.0	1.1	1.3	1.5	1.6	1.9	2.1
Designtyp Room								
Degression [D]	1.0	1.2	1.4	1.6	1.8	2.0	2.3	2.5

Table 1: *Degressions of different types of near comfort lenses depending on the addition using the example of Rodenstock Ergo near comfort lenses*

Addition [D]	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00
Design type Book								
In the upper area of the lens up to (max.) [m]	1.8	1.4	1.2	1.1	1.0	1.0	1.0	1.0
At the height of the centration point until [m]	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
In the near vision area until (min.) [m]	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3
Design type PC								
In the upper area of the lens up to (max.) [m]	2.2	1.9	1.6	1.4	1.3	1.3	1.3	1.3
At the height of the centration point until [m]	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
In the near vision area until (min.) [m]	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3
Design type Room								
In the upper area of the lens up to (max.) [m]	3.8	3.2	2.7	2.5	2.5	2.5	2.5	2.5
At the height of the centration point until [m]	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9
In the near vision area until (min.) [m]	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3

Table 2: *Maximum distance ranges of the three design types*

- The distance between the near vision area and the room vision area is called the degression length. The lower the degression length, the narrower the intermediate vision area.
- The greater the length of the degression, the more the wearer must lower his or her gaze in order to be able to see through the near vision area of the lens.
- If the degression length is the same, near comfort lenses have a narrower intermediate vision area if the degression is large. This is why the degression value for near comfort lenses is limited to approx. 2.00 D.
- Near comfort lenses are optimised for the following wearing situations (variable tilt situation depending on e.g. base curve, frame, center thickness reduction, individual parameters):

  Possible value ranges for near comfort lenses with individual parameters that can be ordered:

  Cornea vertex distance (CVD): 5 – 30 mm,
  Pupil distance (PD): 20 – 40 mm,
  Pantoscopic tilt (PT): -5° - 20°
  Face form angle (FFA): -5° - 15°

  Near comfort lenses with orderable PD:
  Pupil distance (PD): 20 – 40 mm
  For products where the individual parameters cannot be ordered, it is recommended to adjust the frame with a pantoscopic tilt of approx. 8°, a face form angle of approx. 5° and a corneal vertex distance of approx. 13 mm. These products are based on a standard pupil distance of 32 mm.

  Conventional near comfort lenses or free-form near comfort lenses of the old generation are calculated for a fixed tilt situation and "central" centring.
- The satisfaction guarantee for Rodenstock near comfort lenses is only valid for the described intended use and with proper application.

2 Restrictions of use & foreseeable misuse

- Near comfort lenses are not suitable for seeing beyond the room distance to the distance.
  The distance power required for ordering Ergo near comfort lenses is important for the exact optimisation of the near comfort lens, even if it cannot be found in the lens.
- Due to the lack of far vision, near comfort lenses do not meet the criteria for roadworthiness prescribed by EN ISO 14889 and 8980-3:2013. They are therefore not suitable for road use and driving.
- Near comfort lenses are generally not recommended for people with a sufficiently large accommodation capacity for a standard reading distance of 40cm (accommodation capacity > 2.50 D). Accommodation capacity is usually less than 2.50 D from the age of approx. 45 years.
- In contrast to single vision lenses, orientation areas of a near comfort lens are not suitable for sharp vision.
- They are not suitable for near vision in conjunction with eye elevation.
- 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 chapters "Intended use" and "Correct use".

3 Correct use

- An anatomical fitting of the frame to the wearer's face is essential for selecting the right type of near comfort lens and correct centring. The individual parameters of the wearing situation (pupil distance, cornea vertex distance, face form angle and pantoscopic tilt) should be measured and the appropriate near comfort lens selected.

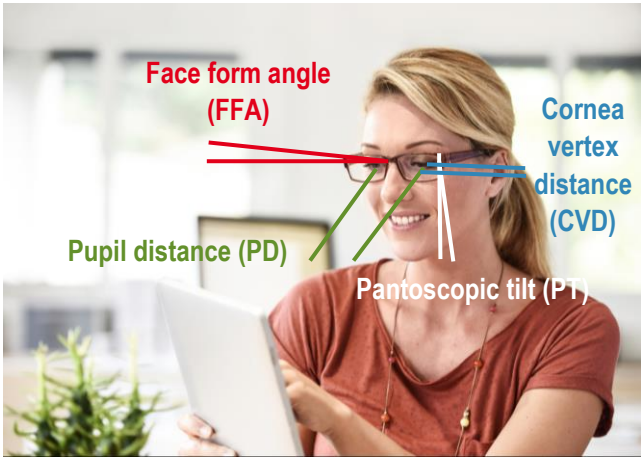

Figure 7: Individual parameters of the wearing situation

- When selecting the best type of near comfort lens, other criteria such as visual requirements, degression lengths or near distances can be taken into account. 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.
- Near comfort lenses should be centred on the pair of eyes in such a way that the centring cross coincides with the centre of the pupil in a habitual head and body posture and the reference point near lies within the frame.
- When determining the centring, the minimum grinding heights (position of the reference point near + 2 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.

- Near comfort lenses are considered to be power variation lenses with a primary reference point for near distance in the sense of EN ISO 21987:2017. Products ordered with distance refraction and addition also have a secondary reference point. The products are checked in accordance with ISO 8980-2 before delivery to the optician to ensure that the verification power is within tolerance. If the measured values of the lens in the reference points correspond to the verification values on the lens bag in compliance with the tolerance, the near comfort lens is fully correcting in the wearing situation.
- Further information on near comfort lenses, such as the correct selection of the required product depending on the requirement profile of the spectacle wearer, can be found in the current consultation programme.

4 Risks & side effects

- With near comfort lenses, the spectacle wearer sees always out of focus when looking into the far distance, even if this is not subjectively perceived as such. Near comfort lenses are therefore not suitable for seeing beyond the room distance to the distance and are mainly intended for indoor use.
- Because near comfort lenses with different vision areas are constructed differently from single vision lenses, it can take some time at first for the wearer to get used to the new lenses. This may result in swim effects and slight distortions in the peripheral areas of the lens, combined with a change in spatial perception.
- Instead of moving the eyes, a near comfort lens requires the head to be moved.
- If near comfort lenses are worn when climbing stairs, it is important to note that the spectacle wearer should look through the upper part of the near comfort lens, because when looking down stairs, the near area would actually be used. However, this does not provide the optimum correction for the distance up to the stairs.
- The initial symptoms described are natural and are hardly or no longer noticed over time (approx. two to three weeks).

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

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