DIN CERTCO
Gesellschaft für Konformitätsbewertung mbH

PZA Nürnberg
Testing Centre Eye-Protection
Tillystraße 2
90431 Nürnberg

Test Report

No. 1156-PZA-25 Part 1
Rev. 0

Contact person: Anke Kozaczek

phone: +49 911 655-3037
e-mail: anke.kozaczek@dincertco.de

Accredited by the Deutsche Akkreditierungsstelle GmbH (DAkkS)
D-PL-11125-01

Customer

Bresser GmbH
Gutenbergstr. 2
46414 Rhede

Test report contains	Main part and 1 annex
Number of pages	5
Product	Filters for direct observation of the sun
Arrival of samples	2025-04-09
Period of testing	2025-04-15 to 2025-07-08
Reference standard	DIN EN ISO 12312-2 : 2015-11
Remarks	None

This test report relates to the mentioned test samples. Without the permission of the DIN CERTCO test centre Nürnberg this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any certification mark.

Nürnberg, 2025-07-08

Compiled by:

René Jäger
- Test Engineer -

Reviewed by:

Nikita Beketov, M. Sc.
- Test Engineer -

Test objects, tests and results

Based on the tables as written in the standard DIN EN ISO 12312-2, the main part assigns the test samples to the named tests. Each individual test result is documented in the annex according to the named standards.

Signs and symbols:

+	meet the requirements
–	***do not meet the requirements***
/	not tested or not applicable
Ab	interruption of the testing sequence

The uncertainty of optical measurements corresponds to the required one in DIN EN ISO 12311.

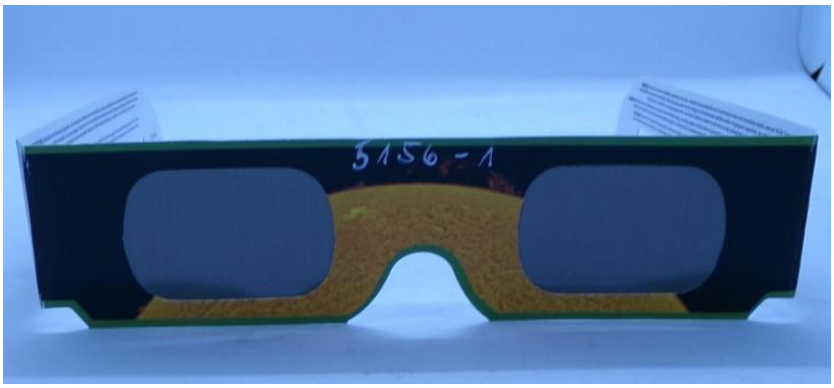
Unless stated otherwise, the measurements were carried out in the main viewing point of the samples and, in the case of lenses with corrective power, at the applicable reference point.

Detailed information about the measurement uncertainties are included in the separate document – overview of measurement uncertainties.pdf.

Unless otherwise specified, the ambient temperature for testing was maintained at (23 ± 5) °C and the relative humidity at (50 ± 20) %.

Samples and summary of all test results

Type:	Filters for direct observation of the sun, type “Eclipse glasses”
Test mark:	11561-PZA-25
Number of delivered parts: 6	Number of test samples: 2



Test-sequence	Requirements	According to		Tests According to		Sample 5156-1 to 5156-2
		DIN EN ISO	Clause	DIN EN ISO	Clause	
1	Information and marking	/*	/*	/*	/*	+
2	Labelling	12312-2	5	12312-2	5	+
3	Mounting	12312-2	4.3	12312-2	4.3	+
4	Material and surface quality	12312-2	4.2	12312-2	4.2	+
5	Transmittance	12312-2	4.1	12311	7	+
Individual results of each test sample see annex 1						

*Requirements and test according to PPE-Regulation (EU) 2016/425.

ANNEX 1

Type:	Filters for direct observation of the sun, type “Eclipse glasses”
Test mark:	11561-PZA-25

Description of the type

Condition of the test item at delivery:	Undamaged	
Frame:	Marking:	User manual
	Material:	Paper
	Colour:	Multicoloured
Oculars:	Material:	Plastics
	Colour:	Grey
	Centre thickness:	0.06 mm
Test device for centre thickness: No. 9022798 Test device for dimension: No. 9022763		

Information and labeling

Test ↓ **Sample →**	5156-1
Labelling (DIN EN ISO 12312-2):	Available and complete
Information ((EU) 2016/425):	Available and complete
Marking ((EU) 2016/425):	Available and complete

Type:	Filters for direct observation of the sun, type “Eclipse glasses”
Test mark:	11561-PZA-25

Mounting, material and surface quality

Test ↓	**Sample →**	5156-1			
Mounting	General requirements	+			
	overall dimensions	Width:	147 mm	depth:	36 mm
	dimensions of cut away for crest of the nose	height:	15 mm	Width:	27 mm
	Material quality	+			
Material and surface quality		+			
Test device for dimensions: No. 9022763					

Transmittance

Test ↓	**Sample →**	5156-2 right	5156-2 left
Luminous transmittance τ_{V1} based on CIE source D65	%	0.0002	0.0002
Maximum value of solar UVB-transmittance 280 nm ≤ τ_{SUVB} ≤ 315 nm		≤ τ_{v1}	≤ τ_{v1}
Maximum value of solar UVA-transmittance 315 nm ≤ τ_{SUVA} ≤ 380 nm		≤ τ_{v1}	≤ τ_{v1}
Maximum value of solar IR transmittance 780 nm ≤ τ_{SIR} ≤ 2000 nm		≤ 3%	≤ 3%
Uniformity of luminous transmittance	%	1.7	4.1
Test device for transmittance: No. 9022782 Test device for uniformity in transmittance: No. 9022815			

End of test report