

Test Report

No. 0176-PZA-25
Rev. 0

Contact person: Anke Kozaczek

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

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D-PL-11125-01

Customer

Bresser GmbH
Gutenbergstr. 2
46414 Rhede

Test report contains	Main part and 1 annex
Number of pages	4
Product	Filters for direct observation of the sun
Arrival of samples	2025-04-04
Period of testing	2025-04-30 to 2025-05-06
Reference standard	DIN EN ISO 12312-2 : 2015-11
Remarks	Partial Testing

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, 2025-05-06

Compiled by:



Anke Kozaczek, B. Sc.
- Test Engineer -



Reviewed by:



René Jäger
- 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 annexes 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 $(23 \pm 5) ^\circ\text{C}$ and the relative humidity at $(50 \pm 20) \%$.

Samples and summary of all test results

Type:	Filters for direct observation of the sun, type "EXPLORE SCIENTIFIC Solarix Sonnenfilterfolie A4"					
Test mark:	01761-PZA-25					
Number of delivered parts: 3			Number of test samples: 3			
						
Test- sequence	Requirements			Tests		Sample 5176-1 to 5176-3
		According to DIN EN ISO	Clause	According to DIN EN ISO	Clause	
1	Transmittance	12312-2	4.1	12311	7	+
Individual results of each test sample see annex 1						

ANNEX 1

Type:	Filters for direct observation of the sun, type "EXPLORE SCIENTIFIC Solarix Sonnenfilterfolie A4"
Test mark:	01761-PZA-25

Description of the type

Condition of the test item at delivery:	Undamaged	
Oculars:	Material:	Plastics
	Colour:	Grey, silver mirrored
	Centre thickness:	0.05 mm
Test device for centre thickness: No. 9022798		
Test device for dimension: No. 9022763		

Transmittance

Test ↓	Sample →	5176-1	5176-2	5176-3
Luminous transmittance τ_{v1} based on CIE source D65	%	0.00007	0.00007	0.00007
Maximum value of solar UVB-transmittance $280 \text{ nm} \leq \tau_{\text{SUVB}} \leq 315 \text{ nm}$		$\leq \tau_{v1}$	$\leq \tau_{v1}$	$\leq \tau_{v1}$
Maximum value of solar UVA-transmittance $315 \text{ nm} \leq \tau_{\text{SUVA}} \leq 380 \text{ nm}$		$\leq \tau_{v1}$	$\leq \tau_{v1}$	$\leq \tau_{v1}$
Maximum value of solar IR transmittance $780 \text{ nm} \leq \tau_{\text{SIR}} \leq 2000 \text{ nm}$		$\leq 3\%$	$\leq 3\%$	$\leq 3\%$
Uniformity of luminous transmittance	%	5.6	5.2	4.0
Test device for transmittance: No. 9022782				
Test device for uniformity in transmittance: No. 9022815				

End of test report

