

Test Report

No. 1247-PZA-20
Rev. 0

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Customer

Enbi Germany GmbH
Stauffenbergstr. 3
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Test report contains	Main part and 1 annex
Number of pages	5
Product	Face shield
Arrival of samples	2020-06-08
Period of testing	2020-06-09 to 2020-07-30
Reference Standard	DIN EN 166 : 2002-04
Remarks	Special testing sequence

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, 2020-07-30

Compiled by:



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- Test Engineer -



Reviewed by:



Dr. Andreas Winbauer
- Head of Testing Laboratory -



Test objects, tests and results

Based on the tables as written in the standard DIN EN 166, 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 167.

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.

Samples and summary of all test results

Type:	Face shield, type "EnbiGuard"					
Test mark:	12471-PZA-20					
Number of delivered parts: 18			Number of test samples: 18			
						
Test-sequence	Requirements	according to		Tests according to		Sample 0247-1 to 0247-18
		DIN EN	Clause	DIN EN	Clause	
1	User information	166	10	166	10	+
2	Design and manufacturing requirements	166	6	166	6	+
3	Lateral protection	166	7.2.8	168	19	+
4	Field of vision	166	7.1.1	168	18	+
5	Diffusion of light	166	7.1.2.3	167	4	+
6	Spherical refractive power and astigmatic refractive power	166	7.1.2.1	167	3	+
7	Prismatic refractive power	166	7.1.2.1	167	3	+
8	Transmittance	166	7.1.2.2	167	6	+
9	Increased robustness	166	7.1.4.2	168	3	+
10	Resistance to ignition	166	7.1.7	168	7	+
11	Protection against splashes of liquids	166	7.2.4b	168	10.2	+
Individual results of each test sample see annex 1						

Marking:

Frame:	enbi EnbiGuard Enbi Germany GmbH
Oculars:	None

ANNEX 1

Type:	Face shield, type "EnbiGuard"
Test mark:	12471-PZA-20

Description of the type

Condition of the test item at delivery:	Undamaged	
Frame:	Material:	Plastics, elastic band, foam
	Colour:	Black, white, red
Oculars:	Material:	Plastics
	Colour:	Untinted
	Centre thickness:	0.3 mm
	Dimension:	340 mm x 220 mm
User information:	Available and complete, including additional information	
Design and manufacturing requirements:	Fulfill the requirements	

Diffusion of light, refractive powers, transmittance, lateral protection and field of vision

Test↓	Sample →		0247-1	0247-2	0247-3
Reduced luminance coefficient	R	cd/m ² lx	0.02	0.01	0.01
	L		0.07	0.03	0.02
Spherical power	R	dpt	+0.01	+0.02	+0.01
	L		+0.02	+0.01	+0.01
Astigmatic power	R	dpt	0.01	0.01	0.01
	L		0.01	0.01	0.01
Difference in prismatic effect horizontal		cm/m	0.00	0.00	0.00
Difference in prismatic effect vertical		cm/m	0.00	0.00	0.00
Optical class			1	1	1
Luminous transmittance τ _{v1} based on CIE source A	R	%	90.6	91.1	91.2
	L		90.4	90.9	91.1
Lateral protection			+	+	+
Field of vision			+	+	+

Type:	Face shield, type "EnbiGuard"
Test mark:	12471-PZA-20

Increased robustness

Ambient temperature: (23±5)° C

Sample	Impact point	Comments
0247-4	1	+
0247-5	1	+
0247-6	2	+
0247-7	2	+
0247-8	3	+
0247-9	4	+
0247-10	1	+
0247-11	1	+
0247-12	2	+
0247-13	2	+
0247-14	3	+
0247-15	4	+

Impact point 1: left eye frontal
Impact point 2: right eye frontalImpact point 3: left eye side
Impact point 4: right eye side**Resistance to ignition**

Test ↓	Sample →	0247-7	0247-8	0247-9
Resistance to ignition		+	+	+

Protection against splashes of liquids

Test ↓	Sample →	0247-16	0247-18	0247-19
Comments		+	+	+