



TEST REPORT

Name of product:

Face Shield

Model:

SR002

Test sort:

Commission Test

Shenzhen Boyuan Testing Technology CO,.LTD



Address of Applicant: NO.13 B longwangmiaoindustrial fuyong town baoan district shenzhen

Address of Manufacturer: NO.13 B longwangmiaoindustrial fuyong town baoan district shenzhen

Samples Receiving Date: April 25, 2020

Testing Period: From April 25, 2020 to April 27, 2020

Tested Standard: EN 166:2001 & EN 167:2001 & EN 168:2001

The submitted sample and sample information was/were submitted and identified by/on behalf of client;

Sample Name: Face Shield

Model No.: SR002

Trade Mark: /

Production batch: /

Quantity: 18 Pairs

Material: ☒ Plastic ☐ Metal ☐ Combined

Types of eye-protectors: ☐ Spectacles without lateral protection

☐ Goggles

☒ Face-shields

Filter Type: ☒ Uniform lenses ☐ Gradient lenses ☐ Polarizing Lenses

Tests Conducted: As requested by the applicant, refer to attached page(s) for details.

zhengchunmei

Approved by

2020-04-27

Date

wang chao

Checked by

2020-04-27

Date

liulin

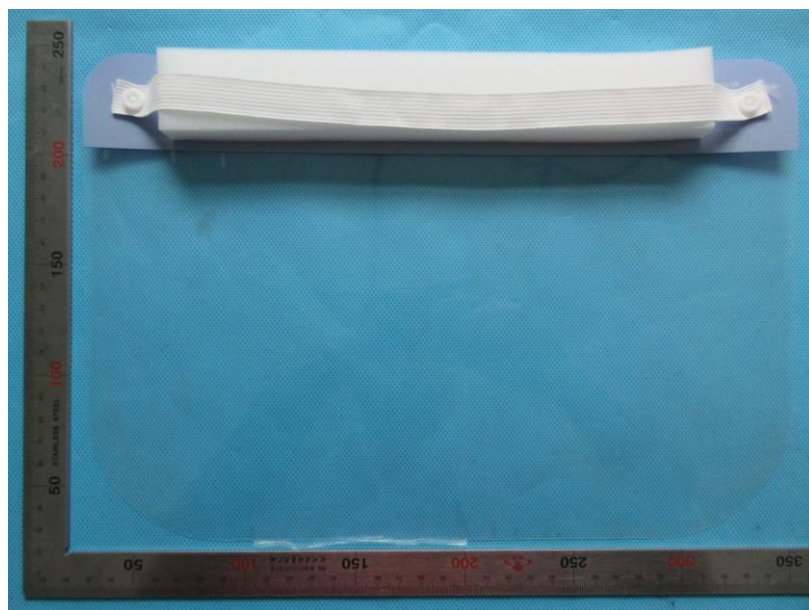
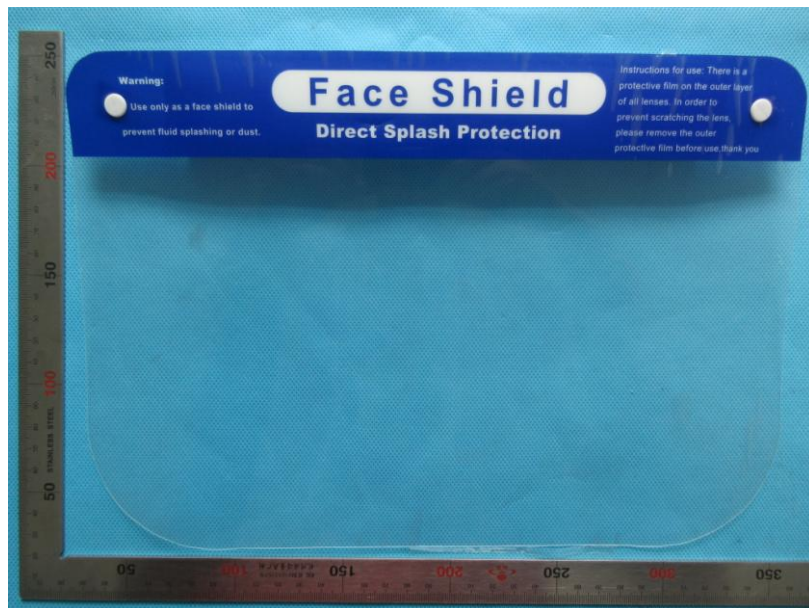
Edited by

2020-04-27

Date



1.Sample photo:



2.Conclusion:

Tested Samples

Face Shield

Standard

EN 166:2001 & EN 167:2001& EN 168:2001

Result

Pass



3.Tests Conducted Summary

3.1 Requirements for Personal eye-protection

Test standard:

- EN 166:2001 Personal eye-protection - Specifications
- EN 167:2001 Personal eye-protection - Optical test methods
- EN 168:2001 Personal eye-protection - Non-optical test methods

3.2 Requirements for Personal eye-protection

Requirement	EN	Clause	Clause test ing		Result
			EN	Clause	
Marking	166	9.1/9.2/9.4	Visual inspection		P
Information	166	10	Visual inspection		P
Construction and materials	166	6.1	Visual inspection		P
		6.2	Manufacturer's certificates		NR
Headbands	166	6.3	By measuring		P
Quality of material and surface	166	7.1.3	167	5	P
Field of vision	166	7.1.1	168	18	P
Refractive properties	166	7.1.2.1	167	3	P
Thermal stability	166	7.1.5.1	168	5	P
Transmittance of oculars	166	7.1.2.2.1	167	6	P
Transmittance of frames	166	7.1.2.2.2	167	6	NA
Variations in transmittance	166	7.1.2.2.3	167	7	NA
Diffusion of light	166	7.1.2.3	167	4	P
Lateral protection	166	7.2.8	168	19	NA
UV stability	166	7.1.5.2	168	6	P
Minimum robustness	166	7.1.4.1	168	4	P
Increased robustness	166	7.1.4.2.2	168	3.2	NA
Corrosion	166	7.1.6	168	8	NA
Ignition	166	7.1.7	168	7	P

Remark:P = Pass; F=Fail; NA=Not Applicable; NR=Not Require; X=Checked



4.Test Results for Personal eye-protection

Marking- Clause9.1/9.2/9.4

Sample No.	Observed	Absent	Comment	Result
N1~N18		X	---	P
Requirements: 1. All markings shall be clear and permanent. The marking shall be fully visible when the complete eye-protector is assembled and shall not encroach into the minimum field of vision defined in 7.1.1. Outside of this area the marking shall not impede vision when worn. 2. The marking of oculars shall contain the relevant technical information. 3. The marking shall comprise the full ocular marking, a hyphen, the number of this standard and then any appropriate symbols for field of use and level of impact.				

Information- Clause10

Sample No.	Observed	Absent	Comment	Result
N1~N18		X	---	P
Requirements: The manufacturer provide with each eye-protector, replacement ocular and replacement frame information.				

☆General Construction — Clause6.1

Quality of material and surface — Clause 7.1.3

Sample No.	Defects				Comment	Result
	General Construction		Quality of material and surface			
	Observed	Absent	Observed	Absent		
N1~N18		X		X	---	P
Requirements: 1. Eye-protectors shall be free from projections, sharp edges or other defects which are likely to cause discomfort or injury during use. 2. Except for a marginal area 5 mm wide, oculars shall be free from any significant defects likely to impair vision in use, such as bubbles, scratches, inclusions, dull spots, pitting, mould marks, scouring, grains, pocking, scaling and undulation.						

☆Field of vision — Clause 7.1.1

Sample No.	Head-form		Exhibit minimum field of vision defined in the standard		Comment	Result
	Medium	Small	Yes	No		
N1~N18	X		X		---	P
Requirements: Eye-Protectors shall be exhibit field of vision an area of not less than 22 mm in the horizontal length and 20mm in the vertical width in front of each eye.						



Headbands—6.3

Sample No.	Observed	Absent	Comment	Result
N1~N18		X	---	P
Requirements: Headbands, when used as the principal means of retention, shall be at least 10 mm wide over any portion which may come into contact with the wearer's head. Headbands shall be adjustable or self-adjusting.				

Refractive properties — Clause 7.1.2.1

Optical power		Left	Right	Limit			Result
Spherical power(m^{-1})		+0.02	+0.02	<input checked="" type="checkbox"/> Optical class1 $\leq\pm 0.06D$ <input type="checkbox"/> Optical class2 $\leq\pm 0.12D$ <input type="checkbox"/> Claimed Cat.:(Not Provided)			P
Astigmatic power(m^{-1})		0.01	0.01	<input checked="" type="checkbox"/> Optical class1 $\leq 0.06D$ <input type="checkbox"/> Optical class2 $\leq 0.12D$ <input type="checkbox"/> Claimed Cat.:(Not Provided)			P
Prismatic power difference (cm/m)				<input checked="" type="checkbox"/> Optical class1	<input type="checkbox"/> Optical class2	<input type="checkbox"/> Optical class3	
Horizontal	Base In	0.12	0.13	0.25	0.25	0.25	P
	Base Out	0.18	0.19	0.75	1.00	1.00	P
Vertical		0.11	0.11	0.25	0.25	0.25	P

Thermal stability — Clause 7.1.5.1

Sample No.	Observed	Absent	Comment	Result
N1~N3		X	---	P
Requirements: Assembled eye-protectors shall show no apparent deformation				

Transmittance of oculars— Clause 7.1.2.2.1

Sample No.	Observed	Absent	Comment	Result
N1~N6		X	---	P
Requirements: Oculars intended to protect the eyes against mechanical or chemical hazards only, and cover plates, shall have a luminous transmittance greater than 74,4 %.				

Diffusion of light— Clause 7.1.2.3

Sample No.	Test Items	Requirements	Left	Right	Result
N4~N6	Diffusion of light	$\leq 0.50 \frac{cd}{m^2 \cdot lx}$	0.25	0.26	P



UV stability — Clause 7.1.5.2

Sample No.	Test Items	Requirements			Left	Right	Result
N4~N6	Difference within filter visual centre(s) P_1 (and P_2) (%)	Luminous transmittance		Permissible relative change %	9.8%	9.5%	P
		less than%	up to %				
		100	17.8	± 5			
		17.8	0.44	± 10			
		0.44	0.023	± 15			
		0.023	0.0012	± 20			
		0.0012	0.000023	± 30			
	Diffusion of light	$\leq 0.50 \frac{cd}{m^2 lx}$			0.19	0.18	P

Minimum robustness — Clause 7.1.4.1

Sample No.	Observed	Absent	Comment	Result
N7~N14		X	---	P
Requirements: a) ocular fracture : an ocular shall be considered to have fractured if it cracks through its entire thickness into two or more pieces, or if more than 5 mg of the ocular material becomes detached from the surface away from the one in contact with the ball, or if the ball passes through the ocular; b) ocular deformation : an ocular shall be considered to have been deformed if a mark appears on the white paper on the opposite side to the one on which the force is applied.				

Ignition — Clause 7.1.7

Sample No.	Not ignite or continue to glow	Requirements	Result
N7~N9	X	Not ignite or continue to glow after withdrawal of the test rod.	P

STATEMENT: “☆” item to be outside the scope of authorized by CNAS.

*****End of report*****