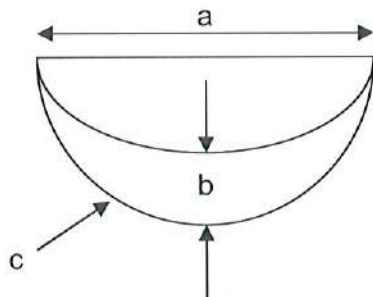
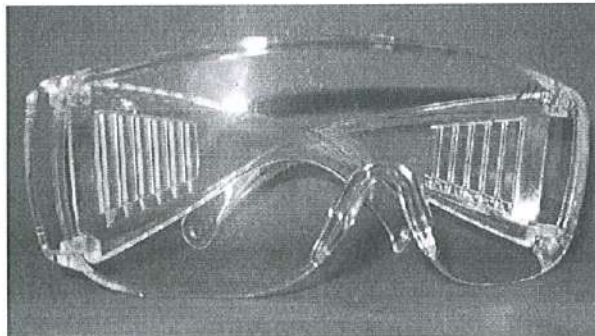


Test mark:	10422-ECS-11
Type:	Safety spectacles YSA2

Measurement Report 2

Description of the type

Design:



Vertex power / dpt:

Front surface: horizontal 4.0 – vertical 4.1

Back surface: horizontal -4.1 – vertical -4.2

Middle thickness / mm: 1.8 ± 0.05

Frame thickness on eyebrow / mm: $\sim 7.8 \pm 0.1$

Frame thickness on the side / mm: $\sim 6.8 \pm 0.1$

Clear safety spectacles with transparent earpieces

Dimensions:

a / mm: 158

b / mm: 60

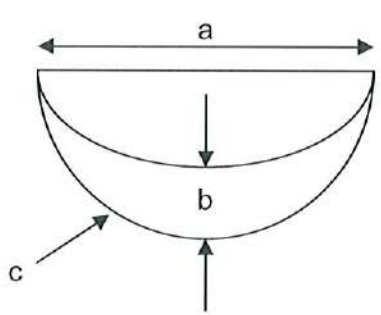
c / mm: 195

Filter:	Identification mark:	none
	Material:	Polycarbonate
Frame:	Identification mark:	none
	Material:	Plastic
Information from the producer:	none	

Test mark:	10422-ECS-11
Type:	Safety spectacles YSA2

Measurement Report 2 – Annex

Description of the type

Design:	
	<p>Vertex power / dpt: Front surface: horizontal 4.0 – vertical 4.2 Back surface: horizontal -4.2 – vertical -4.5</p>
	<p>Middle thickness / mm: 1.9 ± 0.05 From 1.8 ± 0.05 mm (Nasal) to 1.9 ± 0.05 mm (Peripheral)</p> <p>Frame thickness on eyebrow / mm: $\sim 7.8 \pm 0.1$ Frame thickness on the side / mm: $\sim 6.4 \pm 0.1$</p>
<p>Clear safety spectacles with transparent earpieces</p>	<p>Dimensions: a / mm: 158 b / mm: 60 c / mm: 195</p>
Filter:	<p>Identification mark: none</p> <p>Material: Polycarbonate</p>
Frame:	<p>Identification mark: none</p> <p>Material: Plastic</p>
Information from the producer:	none

Test Report

Nr. 1042-ECS-11 Part 2

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Accredited by the Central
 Authority of the Federal States for Safety
 Technologies (ZLS)
 ZLS-P-856/09
 ZLS-ZE-703/09

Customer

Jinhua Jinglan Industry & Trade Co., Ltd.
 Xiaoshun Town, Jindong District

JINHUA CITY
 ZHEJIANG PROVINCE
 P.R.CHINA

Manufacturer

Test report contains

Main part and 1 measurement report annex

Number of pages in this test report

7

Product

Safety spectacles for occupational use

Arrival of samples

April 18 & May 19, 2011

Period of testing

May 04 – June 06, 2011

Test specifications (Standards)

DIN EN 166 : 2001

Remarks

Add delivery

The results described in this test report refer to the mentioned test samples, exclusively. A copy of the test report, complete or in extracts, is not allowed without any written permission of the ECS GmbH Aalen.

Aalen, 6 Jun 2011



Dr. Bernhard Schmitz
 ECS manager

Test objects, tests and results

Based on the tables as written in the standards DIN EN 166, the main part assigns the test samples to the named tests. The test results are documented according to the named standards.

Signs and symbols

The requirements are described in DIN EN 166.

- + meet the requirements
- do not meet the requirements
- / not tested
- n.a. not applicable
- G borderline case
- Ab interruption of the testing sequence

Whenever the dioptric power of the surface is stated, this value was calculated using the formula $F=0,523/r$, where "r" is the radius of the curved surface.

The relative measurement uncertainties of the applied optical metrological instruments correspond to the required one in DIN EN 167.

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

Test results

The annexes document the test results of each individual measurement. All results printed in bold and italic type document that the test sample did actually not meet the requirements which are demanded in the specified standards.

Samples and summary of the test results

Type:		YSA2, spectacles for occupational use					
Test report:		10422-ECS-11					
Number of delivered samples:		30 + 9		Additional delivery and tests because of UV-resistance.			
Number of test samples:		30 + 9					
Test sequence	Requirement	Tests				Samples 11042-31 to -60 -31B to -39B	
		according to					
		EN	Clause	EN	Clause		
1	Marking	166	9.2			n.a.	
2	Information delivered by the manufacturer / applicant	166	10			n.a.	
3	Quality of surface and material	166	7.1.3	167	5	+	
4	Field of vision, area of coverage, side protection	166	7.1.1	168	18	+	
5	Spherical + astigmatic refractive powers	166	7.1.2	167	3.2	+	
6	Prismatic refractive power	166	7.1.2	167	3.2	+	
7	Luminous transmittance rel. NA / D65	166	7.1.2	167	6	+	
8	Diffusion of light	166	7.1.2	167	4	+	
9	Resistance to ageing - temperature	166	7.1.5	168	5	+	
10	Resistance to ageing - UV-irradiation	166	7.1.5	168	6	+	
11	Increased robustness (S)	166	7.1.4	168	3.2	+	
12	Protection against high-speed particles, low energy impact (F)	166	7.2.2	168	9	+	
13	Resistance to ignition	166	7.1.7	168	7	+	
14	Resistance to corrosion	166	7.1.6	168	8	n.a.	
See the measurement report for the individual results of each test sample.							

Assessment: JJI 1 F – 166 F CE

Aalen, 6 Jun 2011



 Dr. Bernhard Schmitz
 ECS-Certification

Test mark:	10422-ECS-11
Type:	Safety spectacles YSA2

Quality of material and surface, diffusion of light, refractive powers, transmittance

test ↓ sample →		11042		
		-31B	-32B	-33B
quality of material and surface		+	+	+
field of vision, area of coverage, side protection		+	+	+
spherical power	dpt	0.03	0.03	0.03
astigmatic power	dpt	0.01	0.01	0.0
prismatic power (horizontal/vertical)	cm/m	BO 0.4/0.05	BO 0.4/0.05	BO 0.4/0.05
reduced luminance coefficient, diffusion of light	$\frac{\text{cd/m}^2}{\text{lx}}$	0.23	0.17	0.22
optical class		1	1	1
luminous transmittance rel NA τ	%	88.4	88.9	88.5
luminous transmittance rel D65 τ	%	88.2	88.7	88.3

Test mark:	10422-ECS-11
Type:	Safety spectacles YSA2

Quality of material and surface, diffusion light, refractive powers, transmittance after test to UV ageing

test ↓ sample →		11042		
		-31B	-32B	-33B
quality of material and surface		yellowish color after UV ageing		
spherical power	dpt	0.01	0.01	0.02
astigmatic power	dpt	0.0	0.0	0.01
reduced luminance coefficient, diffusion of light	$\frac{\text{cd/m}^2}{\text{lx}}$	0.27	0.30	0.28
luminous transmittance rel NA τ	%	88.3	88.2	88.0
relative change	%	0.1	0.8	0.6

Test mark:	10422-ECS-11
Type:	Safety spectacles YSA2

Protection against high-speed particles / resistance to energy impact

sample ↓	test →	test temperature / °C	test point	speed / m/s	Results
11042-34B		RT	left frontal	≥45	+
11042-35B		RT	left frontal	≥45	+
11042-36B		RT	right frontal	≥45	+
11042-37B		RT	right frontal	≥45	+
11042-38B		RT	left side	≥45	+
11042-39B		RT	right side	≥45	+

Resistance to ignition

test ↓	sample →	11042		
		-34B	-35B	-36B
Flammability		temperature > 650 °C no ignition, no further glowing		

Aalen, Juni 6, 2011



M.Sc. Angelica Soto Duran
ECS Test Engineer