Ficha Técnica de Producto

REF: C20182113

GAFA DE SEGURIDAD LENTE CLARO "KOLAROV" ANTIEMPAÑANTE

- **Descripción:** Gafa de seguridad lente claro "KOLAROV" Antiempañante
- **Marca:** Creattor
- **Presentación comercial:** Par de gafas.
- **Fabricación:** Producto importado.

Descripción del producto

Lentes para protección visual en policarbonato, utilizados como protección primaria de acuerdo a recomendaciones de OSHA.

Características del producto

- Aptos para trabajos en exteriores e interiores, diseñados para proteger contra impactos a alta y baja velocidad.
- Resistente a impactos, abrasión y salpicadura de líquidos irritantes.
- Diseño deportivo.
- Visión periférica.
- CERTIFICACIONES ANSI Z87.1+Europa EN 166.

PROPIEDADES FISICAS	LIMITE SUPERIOR ESPECIFICACIONES	OBJETIVO	LIMITE INFERIOR ESPECIFICACIONES
Espesor de la lente	2,1	2,0	2,0
Base de lente de protección lateral (base curva)	N/A	N/A	N/A
Base de lente óptica (base curva)	N/A	9,25C	N/A
Peso (g)	24,4	24	23,6
Tamaño de la lente (vertical) (mm.)	47	46	45
Tamaño de la lente (diagonal) (mm.)	97	96	95
Distancia interpupilar (mm.)	N/A	64	N/A
Forma ocular (bisagra-bisagra) (mm.)	137	138	135
Longitud de la patilla (lente a punta) (mm)	121	120	119
Análisis óptico: tasa de transmisión(%) para lente transparente	100	88	85
Análisis óptica - Velocidad de transmisión (%) para lente ahumada	10,5	10	8
Análisis óptico - Valor UV	N/A	380	N/A
Óptica - Analizador de espejos,Prizm poder,	N/A	0,5 - ,25	N/A
Horizontal, L&R			
Vertical, L&R			
Prueba de alto impacto (lente, montura, templos) L&R	N/A	ALTA VELOCIDAD (150 FT / S)	N/A
Prueba de penetración	N/A	CUMPLE	N/A

Especificaciones del producto

- Lentes ópticamente aclarados y modificados para visión neutra.
- Lentes con tratamiento anti rayadura y recubiertos con filtro UV.
- Visor de policarbonato oftálmico de alta transparencia, con protectores laterales.
- Patillas retráctiles de ajuste de 4 posiciones.
- Marco de PVC Flexible.
- Lentes sin tratamiento antiempañante.

Aplicaciones

Metalmecánica, Farmacéutica, Aserraderos, Minería, Construcción, Forestal, Agricultura, Industria en general, Alimenticia, Química.

Condiciones de Almacenamiento

- Humedad relativa máxima: 70%
- Temperatura máxima: 32°C
- Almacenar en un lugar fresco y seco, evitando los rayos directos del sol.
- Inadecuadas condiciones de almacenamiento, carga y descarga brutal probablemente afectasen la calidad de los productos.

Disposición Final

- En caso de que el producto se encuentre contaminado con residuos, colóquelo en el respectivo contenedor según cual sea la sustancia o material.
- Los empaques contenedores deberán ser depositada en el contenedor correspondiente a residuos reciclables, en caso que esta se encuentre contaminada por alguna sustancia o material, deséchela en el mismo contenedor donde se depositen estas sustancias.

GARANTIA LIMITADA

CREATTOR garantiza que sus productos están libres de defectos en los materiales y en la mano de obra. Un producto sujeto a un reclamo de garantía se debe poner primero a disposición de un distribuidor CREATTOR autorizado o del vendedor a través del cual se ha adquirido el producto.

ICS® INC. LABORATORIES

Test Report T5015-01-1 Issue 1
EN 166:2001
Fu Sheng Optical Industry Co., Ltd.
B105 Spectacles
07 October 2009

ACCREDITED
Certificate 1722.01

Approved by:

Keith E. Whitten
Laboratory Manager

Prepared by:

Cathy Woloszyn
Laboratory Assistant

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b) The contents of this test report are confidential. Reproduction of the report is prohibited except in full, unless approved in writing by ICS Laboratories, Inc.

c) Unless otherwise indicated, the test results contained in this report apply only to the samples tested and not to lots or batches from which they were taken.

ICS Laboratories, Inc. •1072 Industrial Parkway North • Brunswick, Ohio 44212 USA
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Objective:

Contract testing to EN 166:2001, "Personal Eye Protection - Specifications".

Clauses: 7.1 Basic requirements
7.2.1.4 Protection against optical radiation, Sunglare filters for industrial use (EN 172+A2:2001) *(Smoke)*
7.2.2 Protection against high-speed particles – Low, medium or high energy impact (F)

Samples:

B105 Spectacles

Ocular Variant	Qty	Sample ID
Clear	30	5A-x
Smoke	30	5B-x

Date submitted: 16 September 2009

Procedures:

Testing protocols in accord with good laboratory practice were employed unless otherwise specified, for all tests. All tests were conducted in a standard laboratory atmosphere unless otherwise specified.

Testing procedures were followed as specified within:
EN 167:2001 "Personal eye-protection - Optical test methods"
EN 168:2001 "Personal eye-protection - Non-optical test methods"

Samples were randomly selected from the quantity provided and tested in the as-received condition unless otherwise stated.

When applicable, samples were assessed on medium (64mm IPD) headform.

Variation in luminous transmittance- P1 and P2, The actual variation is compared to the specification. If the actual variation does not meet the specification, then the corrected variation is used. The corrected variation is calculated from the difference between the theoretical and actual variation. The theoretical values are determined by applying Beer-Lambert's Law to the known thickness variation of the lens. Lens has a 51 mm vertical depth therefore 40 mm area measured.

Assessment summary:

Dates tested: 25 September through 01 October 2009

EN 166 Requirement	Compliant	Non-Compliant
6 Design and manufacture		
6.1 General construction	X	
6.2 Materials	Not assessed	
6.3 Headbands	Not applicable	
7.1 Basic requirements		
7.1.1 Field of vision	X	
7.1.2 Optical requirements		
7.1.2.1 Spherical, astigmatic, and prismatic refractive powers	Optical Class 1	
7.1.2.2 Transmittance		
7.1.2.2.1 Oculars without filtering action	X	
7.1.2.2.2 Oculars with filtering action	See 7.2.1	
7.1.2.2.3 Variations in transmittance	X	
7.1.2.3 Diffusion of light	X	
7.1.3 Quality of material and surface	X	
7.1.4 Robustness		
7.1.4.1 Minimum robustness	Not applicable	
7.1.4.2 Increased robustness	X	
7.1.5 Resistance to Ageing		
7.1.5.1 Stability at elevated temperatures	X	
7.1.5.2 Resistance to ultraviolet radiation (oculars only)	X	
7.1.6 Resistance to corrosion	Not applicable	
7.1.7 Resistance to ignition	X	
7.2 Particular requirements (Optional)		
7.2.1 Protection against optical radiation		
7.2.1.4 Sunglare filters for industrial use (EN172) *Smoke*	X	
7.2.2 Protection against high speed particles (F)	X	
7.2.8 Lateral Protection	X	
7.3 Optional requirements		
9 Marking	Not assessed	
10 Information supplied by the manufacturer	Not assessed	

Samples as assessed meet the requirements of EN166:2001 and as a result of this assessment the following markings are suggested:

Ocular Variant	Filter Type	Filter Scale	Ocular Marking	Frame Marking
Clear	Not a filter	N/A	CE 'mfg' 1 F	CE 'mfg' EN 166 F
Smoke	Sunglare	5-3.1	CE 'filter scale' 'mfg' 1 F	

Results:

6.1 General construction; Result: Pass

Samples were assessed and found to be free from projections, sharp edges or other defects that are likely to cause discomfort or injury.

7.1.1 Field of view; Result: Pass

Samples assessed and a 22mm(W) x 20mm(H) ellipse could be described in full for each eye (64mm pupil distance)

7.1.2.1 Refractive powers

Spherical and astigmatic powers

Sample ID	Left Ocular		Right Ocular		Optical Class Met
	Spherical Power (m^{-1})	Astigmatic Power (m^{-1})	Spherical Power (m^{-1})	Astigmatic Power (m^{-1})	
5A-1	0.00	0.02	0.00	0.02	1
5A-2	0.00	0.02	-0.01	0.01	1
5A-3	-0.01	0.01	-0.01	0.03	1
Specification Optical Class 1: Optical Class 2: Optical Class 3:	 +/- 0.06 +/- 0.12 + 0.12 /- 0.25	 ≤ 0.06 ≤ 0.12 ≤ 0.25	 +/- 0.06 +/- 0.12 + 0.12 /- 0.25	 ≤ 0.06 ≤ 0.12 ≤ 0.25	

7.1.2.2.3 Variations in transmittance *[filtering]*

Smoke

Sample ID:	5B-4		5B-5		5B-6		Specification
Ocular:	Left	Right	Left	Right	Left	Right	
Maximum %T:	10.5	10.0	10.5	10.0	10.4	9.8	
Center %T:	9.9	9.8	9.9	9.7	9.8	9.5	
Minimum %T:	9.7	9.6	9.6	9.5	9.5	9.4	
Actual P1 & P2:	6.1	2.6	6.0	3.2	6.6	3.1	± 10 %
P3:	1.5		2.0		2.3		± 20%
Pass/Fail:	Pass						

7.1.2.3 Diffusion of light

Sample ID	Measured Value ($cd/m^2/lx$)	Pass	Fail
Clear			
5A-4	0.06	X	
5A-5	0.04	X	
5A-6	0.17	X	
Smoke			
5B-4	0.08	X	
5B-5	0.08	X	
5B-6	0.06	X	
Specification:	≤ 0.75		

7.1.3 Quality of material and surface; Result: Pass

Samples assessed were found to be free of any optical defects that could impair vision.

7.1.5.2 Resistance to ultraviolet radiation - Transmittance

Sample ID	Before (%T)	After (%T)	Relative Change (%)	Pass	Fail
Clear					
5A-4	91.1	90.8	-0.3	X	
5A-5	90.9	90.7	-0.2	X	
5A-6	91.2	90.8	-0.4	X	
Specification:			±5		
Smoke					
5B-4	9.80	9.68	-1.2	X	
5B-5	9.90	9.90	0.0	X	
5B-6	9.50	9.51	0.1	X	
Specification:			±5		

7.1.5.2 Resistance to ultraviolet radiation – Diffusion of Light

Sample ID	Measured Value ($cd/m^2/lx$)	Pass	Fail
Clear			
5A-4	0.09	X	
5A-5	0.07	X	
5A-6	0.07	X	
Smoke			
5B-4	0.15	X	
5B-5	0.14	X	
5B-6	0.11	X	
Specification:	≤ 0.75		

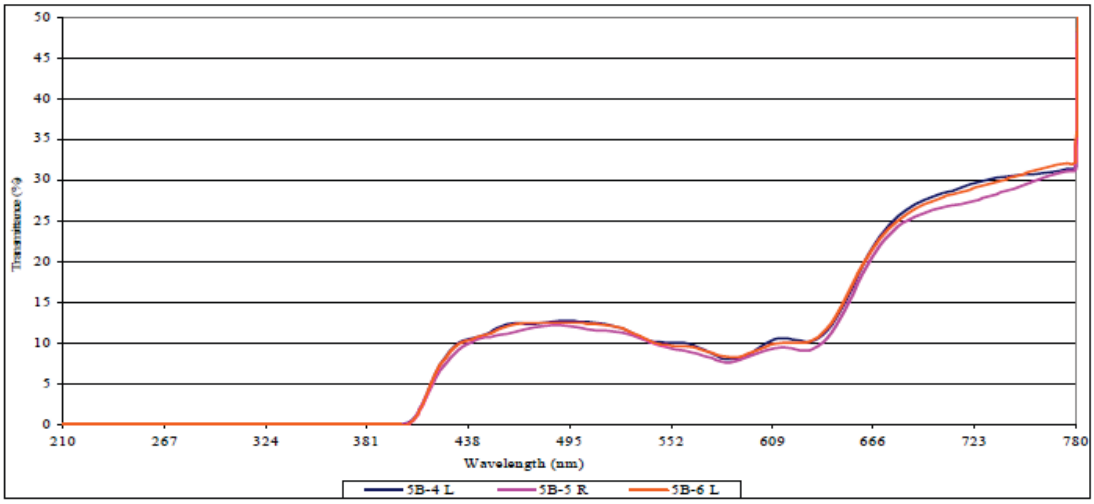
7.1.7 Resistance to ignition; Result: Pass

Samples did not ignite or continue to glow after removal of the steel rod.

7.2.1.4 Protection against optical radiation - Sunglare filters for industrial use (EN 172)

Smoke

Sample ID:	5B-4	5B-5	5B-6	Specification Scale Number 5-3.1
Luminous (Tv)	10.5	9.9	10.4	8.0 to 17.8 %
Max. 280 to 315nm	<1E-4	<1E-4	<1E-4	≤ 0.01 Tv
Max. 315 to 350nm	<1E-4	<1E-4	<1E-4	≤ 0.5 Tv
Mean 315 to 380nm	<1E-4	<1E-4	<1E-4	≤ 0.5 Tv
Requirements for "Driving and Road Use:				
Luminous (Tv)	10.5	9.9	10.4	≥ 8.0%
Min. 500 to 650nm	8.0	7.7	8.3	≥ 0.2 Tv
Attenuation Quotients:				
Red Signal	1.08	1.06	1.08	≥ 0.8
Yellow Signal	0.96	0.95	0.96	
Green Signal	1.04	1.04	1.04	
Blue Signal	1.19	1.20	1.19	
Scale number met	5-3.1			



7.2.2 Protection against high-speed particles

Sample ID	Location	Velocity (m/s)	Pass	Fail
Clear				
5A-19	Left Frontal (1)	46.3	X	
5A-20		46.3	X	
5A-21		46.6	X	
5A-22		46.3	X	
5A-23	Right Frontal (2)	46.6	X	
5A-24		46.3	X	
5A-25		46.6	X	
5A-26		46.0	X	
5A-27	Left Lateral (3)	46.6	X	
5A-28		46.3	X	
5A-29	Right Lateral (4)	46.3	X	
5A-30		46.3	X	
Smoke				
5B-19	Left Frontal (1)	46.3	X	
5B-20		46.6	X	
5B-21		46.6	X	
5B-22		46.3	X	
5B-23	Right Frontal (2)	46.6	X	
5B-24		46.6	X	
5B-25		46.6	X	
5B-26		46.0	X	
5B-27	Left Lateral (3)	46.3	X	
5B-28		45.7	X	
5B-29	Right Lateral (4)	46.0	X	
5B-30		46.6	X	

7.2.8 Lateral protection; Result: Pass

Samples prevent the tip of a 2mm rod from touching the lateral impact regions of the headform.

Sample photographs:

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9. Test reports are valid for certification purposes for one year from date of issue, inclusive of retest or variant additions which must be performed within one year of date of issue to avoid full retest.
10. Client is responsible for procuring, at its cost, insurance protecting the value of its property and samples.
11. For the safety of our personnel, Client must advise if samples are known or suspected to contain hazardous substances. Safety Data Sheets must be provided upon request if available.
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13. ICS hereby objects to any conflicting terms contained in any order or acceptance submitted by Client.
14. Schedules are confirmed upon acceptance of quotation. All reasonable efforts will be made to comply with conferred schedule. Guarantees are neither implied nor promised.
15. Certain work may be subcontracted to ICS authorized affiliate laboratories as required or applicable. Client will be made aware of subcontracted work.
16. Client agrees to pay any and all additional costs associated with unexpected or above-standard communications and/or consultations with Client or third parties as designated by Client.
17. Client agrees to pay any and all additional costs for work additional to the original scope of work as agreed to by Client.
18. Client understands and agrees that ICS, in entering into this Contract and by performing services hereunder, does not assume, abridge, abrogate or undertake to discharge any duty or responsibility of Client to any other party or parties. No one other than Client shall have any right to rely on any Report or other representation of conduct of ICS and ICS disclaims any obligations of any nature whatsoever with respect to such person.
19. Client agrees, in consideration of ICS undertaking to perform the test(s) hereunder, to protect, defend and indemnify ICS from any and all claims, damages, expenses either direct or consequential for injuries to persons or property arising out of or in consequence of the performance of the testing, inspection and reporting hereunder and/or the performance of the products tested or inspected hereunder, UNLESS CAUSED BY THE NEGLIGENCE OF ICS.
20. IT IS AGREED THAT IF ICS SHOULD BE FOUND LIABLE FOR ANY LOSSES OR DAMAGES ATTRIBUTABLE TO THE SERVICES HEREUNDER IN ANY RESPECT, ITS LIABILITY SHALL IN NO EVENT EXCEED THE AMOUNT OF THE FEE PAID BY CLIENT FOR SUCH SERVICES AND CLIENT'S SOLE REMEDY AT LAW OR IN EQUITY SHALL BE THE RIGHT TO RECOVER UP TO SUCH AMOUNT.
21. Quotations are valid for 30 days from date of issue. Terms: 30% Laboratory/Testing fees invoiced and payable upon acceptance of quotation. Remaining fees invoiced and payable upon completion of services, 15 days net. Cancelled jobs will be invoiced for work performed and/or set-up costs incurred. Cancelled Purchase Orders are subject to 10% service charge. Shipping costs incurred by ICS will be invoiced at cost +10% handling fee. A minimum USD $25.00 handling fee will be also invoiced. For shipping costs incurred by Client, ICS will invoice a minimum USD $25.00 handling fee.
22. In the event that payment is not received within 15 days of invoice date, Client agrees to pay a late payment charge on the unpaid balance equal to 1-1/2% per month or the maximum charge allowed by law, whichever is less, and all costs and expenses, including attorney's fees where recovery of the same is not prohibited by law, incurred by ICS in collecting such invoices.
23. All costs associated with compliance with any subpoena (s) for documents, testimony in a court of law, or for any other purpose relating to work performed by ICS in connection with work performed for that Client, shall be paid by Client. Client shall also pay ICS's then existing standard fee for consulting, deposition and trial testimony and all expenses related thereto.
24. Cancelled/discontinued orders: Client responsible for all administrative and testing charges up to point of cancellation.