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## TEST REPORT

Applicant: WESTLAB PTY LTD  
4 CARGO WAY  
MITCHELL PARK  
VICTORIA 3355  
AUSTRALIA

Number: HKGH02638181

Date: Sep 15, 2020

Attn: TED FOWLER

Submitted sample said to be :  
Item Name : **WESTLAB FACE SHIELD**  
Quantity : 24 pieces  
Manufacturer : WESTLAB PTY LTD.  
Country of Origin : Australia

**Conclusion:**

The submitted sample was tested under the following requirements requested by the applicant, subject to the information stated in the remark and attached page(s) for details :

<u>Requirement</u>	<u>Result</u>
(1) BS EN 166:2002 Personal eye-protection - Specifications excluding: - clause 9 Marking - clause 10 Information supplied by the manufacturer	Pass

Prepared and checked by:  
For Intertek Testing Services HK Ltd

Cindy I.K. Chan  
Vice President



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(1) Requirements for personal eye-protection

Test standard: BS EN 166:2002 Personal eye-protection - Specifications.

Number of samples tested: Twenty - three (23) pieces

Product type: Face shield

Claimed property: Splash proof

**Note:**

- (1) The submitted face shields were declared by applicant for adult use.
- (2) The applicant's attention was drawn that the manufacturer should not use the materials which are known to cause any skin irritation
- (3) CE marking is not specified in BS EN 166:2002 but per Regulation (EU) 2016/425, Article 16 & Article 17, the CE marking shall be affixed visibly, legibly and indelibly to the face shield. The format of this CE marking was given in Annex II of Regulation (EC) No 765/2008.

However, the CE Marking was not found on the face shield.

Clause	Requirement	Result
6.1	General construction	P
6.2	Materials	Note (2)
6.3	Headbands	P
7.1	Basic requirements	
7.1.1	Field of vision	P
7.1.2	Optical requirements	
7.1.2.1	Spherical, astigmatic & prismatic refractive powers	
7.1.2.1.1	Unmounted oculars covering one eye	NA
7.1.2.1.2	Mounted oculars and unmounted oculars covering both eyes	P
7.1.2.1.3	Cover plates	NA
7.1.2.2	Transmittance	
7.1.2.2.1	Oculars without filtering action	P
7.1.2.2.2	Oculars with filtering action (filters) and housings for oculars with filtering action	NA
7.1.2.2.3	Variations in transmittance	
7.1.2.2.3.1	Oculars without correction effect	NA
7.1.2.2.3.2	Oculars with corrective effect (prescription oculars)	NA



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Clause	Requirement	Result
7.1.2.3	Diffusion of light	P
7.1.3	Quality of materials and surface	P
7.1.4	Robustness	
7.1.4.1	Minimum robustness	NA
7.1.4.2	Increased robustness	
7.1.4.2.1	Unmounted oculars	NA
7.1.4.2.2	Complete eye-protectors and frames	P
7.1.5	Resistance to ageing	
7.1.5.1	Stability at elevated temperature	P
7.1.5.2	Resistance to ultraviolet radiation (oculars only)	P
7.1.6	Resistance to corrosion	NA
7.1.7	Resistance to ignition	P
7.2	Particular requirements	
7.2.1	Protection against optical radiation	NA
7.2.2	Protection against high speed particles	NA
7.2.3	Protection against molten metals & hot solids	NA
7.2.4	Protection against droplets and splashes of liquids	P
7.2.5	Protection against large dust particles	NA
7.2.6	Protection against gases and fine dust particles	NA
7.2.7	Protection against short circuit electric arc	NA
7.2.8	Lateral protection	P
7.3	Optional requirements	
7.3.1	Resistance to surface damage by fine particles	NA
7.3.2	Resistance to fogging of oculars	NA
7.3.3	Oculars with enhanced reflectance in the infra-red	NA
7.3.4	Protection against high speed particles at extremes of temperature	NA
9	Marking	
9.1	General	#1 (Note 3)
9.2	Ocular marking	#2
9.3	Frame marking	#3
9.4	Marking of eye-protectors where the frame and ocular form a single unit	#4
10	Information supplied by the manufacturer	#5



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Abbreviation : P = Pass; NA= Not Applicable

**Test data:**

Optical power	Sample	Left ocular		Right ocular
Spherical power (m <sup>-1</sup> )	01	-0.02		-0.02
	02	-0.02		-0.02
	03	-0.01		-0.02
Astigmatic power (m <sup>-1</sup> )	01	0.02		0.02
	02	0.02		0.02
	03	0.02		0.02
Prismatic power difference (cm/m)	Sample	Horizontal	Vertical	Base in/out
	01	0.15	0	out
	02	0.15	0	out
	03	0.15	0	out

The samples 01, 02 and 03 satisfied the requirements for optical class 1

**Requirement:**

Optical class	Spherical power (D <sub>1</sub> + D <sub>2</sub> )/2 (m <sup>-1</sup> )	Astigmatic power  D <sub>1</sub> - D <sub>2</sub>   (m <sup>-1</sup> )	Prismatic power difference		
			Horizontal limit		Vertical limit
			Base out (cm/m)	Base in (cm/m)	cm/m
1	±0.06	0.06	0.75	0.25	0.25
2	±0.12	0.12	1.00	0.25	0.25
3	+0.12 -0.25	0.25	1.00	0.25	0.25

Note: D1 and D2 are the refractive powers in the two principal meridians. For optical class 3 the axes of the principal meridians shall be parallel within ±10°

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### 7.1.2.2.1 Transmittance - Oculars without filtering action

Range	Sample	Luminous transmittance (%)		Limit (%)
		Left ocular	Right ocular	
380 - 780 nm (T <sub>v</sub> )	04	89.90	89.89	> 74.4
	05	90.08	89.90	
	06	89.62	89.69	

### 7.1.2.3 Diffusion of light

Sample	Reduced luminance factor (cd.m <sup>-2</sup> /lx)		Limit
	Left ocular	Right ocular	
04	0.43	0.36	Oculars used in eye-protectors against high speed particles: 0.75 cd.m <sup>-2</sup> /lx Other oculars: 0.50 cd.m <sup>-2</sup> /lx
05	0.47	0.45	
06	0.34	0.42	

### 7.1.5.2 Resistance to ultraviolet radiation

Sample	Relative change in luminous transmittance after irradiation (%)		Limit
	Left ocular	Right ocular	
04	-1.15	-0.81	<± 5%
05	-1.50	-0.57	
06	-0.97	-0.63	

Sample	Reduced luminance factor after irradiation (cd.m <sup>-2</sup> /lx)		Limit
	Left ocular	Right ocular	
04	0.28	0.38	Oculars used in eye-protectors against high speed particles: 0.75 cd.m <sup>-2</sup> /lx Other oculars: 0.50 cd.m <sup>-2</sup> /lx
05	0.39	0.38	
06	0.40	0.43	



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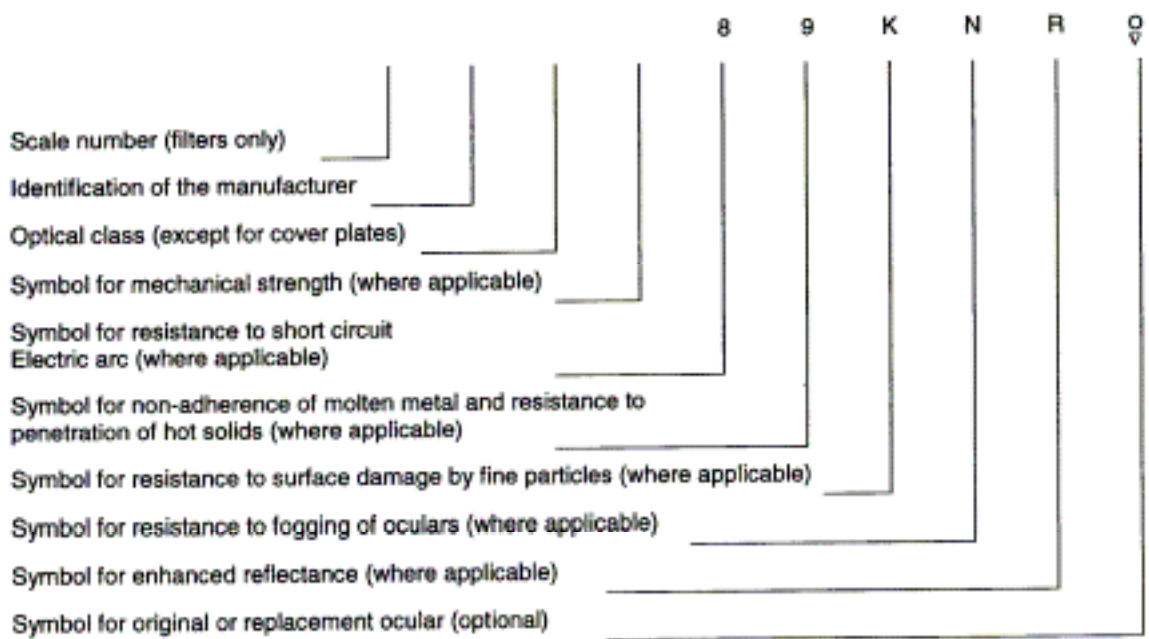
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Remarks:

#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 and shall not impede vision when worn. The number of this standard shall be applied to frames and housings but need not to be applied to oculars. The frame and ocular shall be marked separately. If the ocular and frame form a single unit, the complete marking shall be applied to the frame.

#2 - The marking of oculars shall contain the relevant technical information presented as follows:



In addition, the ocular marking may include a mark to assist correct fitting of laminated oculars (see 9.2.11).

### 9.2.11 Marking of laminated oculars

Certain types of flat laminated oculars may need to be specifically orientated in the frame such that the hazardous splintering layer face outwards, away from the eye. Such oculars shall be identified with a suitable mark on the nasal edge of the front face to help prevent incorrect assembly in the frame.

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#3 - The marking of frames shall contain the relevant technical information presented as follows:

- Identification of the manufacturer
- The number of this standard
- Field(s) of use (where applicable)
- Symbol for increased robustness/resistance to high speed particles/extremes of temperature (where applicable)
- Symbol indicating that the eye-protector is designed to fit a small head (where applicable)
- Highest ocular scale number(s) compatible with the frame (where applicable)



#4 - Eye-protectors in which the frame and ocular form a single unit shall be marked on the frame. The marking shall comprise the full ocular marking, a hyphen, the number of this standard and any appropriate symbols for field of use and level of impact.

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- #5 - The manufacturer shall provide with each eye-protector, replacement ocular and replacement frame at least the following information:
- a) Name and address of the manufacturer;
  - b) The number of this standard;
  - c) The eye-protector model identification;
  - d) Instructions for storage, use and maintenance;
  - e) Specific instructions for cleaning and disinfection;
  - f) Details of the field of use, protection capabilities and performance characteristics;
  - g) Details of suitable accessories and spare parts. Instructions for fitting shall be included with the original eye-protector and/or with the spare part or accessory;
  - h) The obsolescence deadline or period of obsolescence, if applicable, for the complete eye-protector and/ or component parts;
  - i) The type of packaging suitable for transport, if applicable;
  - j) The significance of the marking on the frame and ocular;
  - k) A warning that optical class 3 oculars are not intended for long term use, if applicable;
  - l) A warning concerning the compatibility of marking (see notes (4), (5) and (6) to Table 12);
  - m) A warning that materials which may come into contact with the wearer's skin could cause allergic reactions to susceptible individual;
  - n) A warning that scratched or damaged oculars should be replaced;
  - o) A warning that eye-protectors against high speed particles worn over standard ophthalmic spectacles may transmit impacts, thus creating a hazard to the wearer;
  - p) A note to instruct that if protection against high speed particles at extremes of temperature is required then the selected eye-protector should be marked with the letter T immediately after the impact letter, ie. FT, BT or AT. If the impact letter is not followed by the letter T then the eye-protector shall only be used against high speed particles at room temperature.

Date sample received : Sep 15, 2020  
Testing period : Sep 15, 2020 to Sep 15, 2020

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End of report

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