

TEST REPORT

Applicant: SNOW-HOW CR S.R.O. / DTSINC
16-17 ILSIN-RO, 39 BEON-GIL,
BUPYEONG-GU, INCHEON,
KOREA 21457

Number: HKGH02479699

Date: Jul 15, 2019

Attn: YULRIA PARK

Submitted sample said to be :
Item Name : **SKI GOGGLES**
Ref. No. : **921-621**
Quantity : Twelve pieces
Country of Origin : Korea

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) EN 174 : 2001 Personal Eye-Protection - Ski Goggles for Downhill Skiing excluding: - Clause 4.2 Material - Clause 5.5 Suitability for cleaning and care - Clause 7 Information supplied by the manufacturers CE marking ((EU) 2016/425 Article 17)	Pass See note enclosed

For and on behalf of :
Intertek Testing Services HK Ltd.



Cindy I.K. Chan
Director



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(1) Requirements for Ski Goggles

Test Standard : EN 174 : 2001 - Personal Eye-Protection - Ski Goggles for Downhill Skiing.

Number of samples tested: Nine (9) pairs.

Note:

(1) No parts of the ski goggle which are in contact with the wearer shall be made of materials that are known to cause irritation, allergic or toxic reaction in a normal state of health amongst a significant proportion of users.

(2) CE marking is not specified in EN 174 : 2001 but per Regulation (EU) 2016/425, Article 16 & Article 17, the CE marking shall be affixed visibly, legibly and indelibly to the ski goggle frame. The format of this CE marking was given in Annex II of Regulation (EC) No 765/2008.

However, CE marking was given on the ski goggles but the presentation was found different format from the requirement.

Clause	Requirement	Result
4.1	General requirements	P
4.2	Materials	See note (1)
4.3	Sit and fit	P
4.4	Ventilation	P
5.1	Optical requirements	
5.1.1	Field of vision	P
5.1.2	Lens requirements (see test data)	P
	Optical power	P
	Transmittance	P
	Variations in luminous transmittance	P
	Maximum reduced luminance coefficient	P
	Quality of material and surface	P
	Resistance to ultraviolet radiation	P
5.2	Mechanical strength	P
5.3	Protection against water and snow	P
5.4	Resistance to ignition	P
5.5	Suitability for cleaning and care	#1
5.6	Optional specifications	
5.6.2	Resistance to fogging of oculars	P
7	Information supplied by the manufacturers	#2 (See note (2))

Abbreviation: P = Pass; NA = Not Applicable.



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Test data:
5.1.2 Lens requirements - Optical power :

Optical power	Sample	Left ocular		Right ocular	Optical Class	
Spherical power (m ⁻¹)	1	-0.04		-0.02	Class 1	
	2	-0.06		-0.04		
	3	-0.06		-0.06		
Astigmatic power (m ⁻¹)	1	0.01		0.04		
	2	0		0.02		
	3	0.01		0.01		
Prismatic power difference (cm/m)		Horizontal	Vertical	Base		
	1	0.25	0.025	Out		
	2	0.025	0.025	Out		
	3	0.30	0.025	Out		

Requirement:

Optical Class	Spherical Power (m ⁻¹)	Astigmatic Power (m ⁻¹)	Prismatic power difference (cm/m)		
			Horizontal limit		Vertical limit
			Base out	Base in	
1	±0.09	0.09	0.75	0.25	0.25
2	±0.12	0.12	1.00	0.25	0.25

Transmittance :

Range	Sample	Left ocular (%)	Right ocular (%)	Filter category
380 - 780nm (Tv)	1	14.44	14.14	S3
	2	13.97	14.27	S3
	3	13.91	13.66	S3



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For ultraviolet spectral range :

Range	Sample	Maximum transmittance (%)			
		Left ocular	Right ocular	Limit	
				Left	Right
280 - 315nm (UVB)	1	<0.10	<0.10	≤ 0.03 Tv (0.43)	≤ 0.03 Tv (0.42)
	2	<0.10	<0.10	≤ 0.03 Tv (0.42)	≤ 0.03 Tv (0.43)
	3	<0.10	<0.10	≤ 0.03 Tv (0.42)	≤ 0.03 Tv (0.41)
315 - 350nm (UVA)	1	0.27	0.23	≤ 0.15 Tv (2.16)	≤ 0.15 Tv (2.12)
	2	0.17	0.19	≤ 0.15 Tv (2.10)	≤ 0.15 Tv (2.14)
	3	0.10	0.23	≤ 0.15 Tv (2.09)	≤ 0.15 Tv (2.05)
315 - 380nm (T _{SUVA})	1	0.13	0.14	≤ 0.15 Tv (2.16)	≤ 0.15 Tv (2.12)
	2	<0.10	<0.10	≤ 0.15 Tv (2.10)	≤ 0.15 Tv (2.14)
	3	<0.10	<0.10	≤ 0.15 Tv (2.09)	≤ 0.15 Tv (2.05)

Requirement:

Filter category	Ultraviolet spectral range			Visible spectral range	
	Maximum value of spectral transmittance T(λ)		Maximum value of solar UVA transmittance T _{SUVA}	Range of luminous transmittance (Tv)	
	280 nm to 315 nm	Over 315 nm to 350 nm	315 nm to 380 nm	From over %	To %
S0	0.03 Tv	0.3 Tv	0.3 Tv	80.0	100
S1				43.0	80.0
S2				18.0	43.0
S3		0.15 Tv	0.15 Tv	8.0	18.0
S4				3.0	8.0



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Variations in luminous transmittance

Sample	# - % variation within filter after correction (Relative to higher value)		% difference between filters (Relative to lighter filter)
	Left ocular	Right ocular	
1	3.27	5.03	2.07
2	6.33	3.49	2.13
3	8.28	7.04	1.81
Requirement	≤ 10%		≤ 20%

#Note: The above correction was based on clause 7.3 of EN 167:2001 - method to correct transmittance for variations in thickness of the ocular, with the input of refractive index provided by supplier/ manufacturer.

Maximum reduced luminance coefficient

Sample	Maximum reduced luminance coefficient (cd/m ²)/lx		Class	Limit
	Left ocular	Right ocular		
1	0.69	0.66	1	Diffusion of light (maximum): - Class 1: 1.0(cd/m ²)/lx - Class 2: 2.0(cd/m ²)/lx
2	0.59	0.70	1	
3	0.61	0.75	1	

Resistance to ultraviolet radiation:

Sample	Relative change in the luminous transmittance (%)		Limit
	Left ocular	Right ocular	
1	-1.07	-1.66	±5% for filters of category S0 ±10% for filters of category S1 ±20% for filters of all other categories
2	-0.22	+0.24	

Sample	Maximum reduced luminance coefficient (cd/m ²)/lx		Class	Limit
	Left ocular	Right ocular		
1	0.73	0.66	1	Diffusion of light (maximum): - Class 1: 1.0 (cd/m ²)/lx - Class 2: 2.0 (cd/m ²)/lx
2	0.53	0.68	1	



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Remarks:

#1 - No assessment was made on the suitability for cleaning and cares as such information was not provided by the applicant.

#2 - The applicant's attention is drawn to provide the following minimum information in the national language(s) of the country of sale, in the form of a marking on the ski goggles, an affixed label or packaging, or any combination thereof:

- a) Number and date of this standard;
- b) Filter categories;
- c) Antifogging (if applicable);
- d) Name and address of the manufacturer or supplier;
- e) Instructions for storage, use and maintenance;
- f) Specific instructions for cleaning and disinfection;
- g) Details of the field of use, protection capabilities and performance characteristics;
- h) Details of suitable accessories and spare parts and instructions for fitting;
- i) "Do not use ski goggles in road and when driving"; the following information shall be available from the manufacturer or supplier:
 - a) Optical class;
 - b) A transmittance curve of filter lens.

Date sample received : Jul 02, 2019

Testing period : Jul 02, 2019 to Jul 11, 2019



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End of report

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