中国认可
国际互认
检测
TESTING
CNAS L12820

NO: STC23080133

TEST REPORT

Product： Full Face Respirator Mask Lens for PT-101

Applicant： Parcil Safety

Applicant Add： 318 Main St, Suit 101, Evansville, IN 47708. US

Date of Report： 09/06/2023

NOTES

1

The report is invalid without the stamp of “Inspection & Testing”.

2

The report would be invalid if there is no signature of the authorized signature.

3

Not approved by this institution, the report shall not be copied (except in full text) .

4

The report would be invalid if altered.

5

Different opinions about test report should be put forth to the institute within 15 days from the date of receiving the test report, Otherwise any request would be refused.

6

Except for sampling, the data and results in this report are only suitable for the samples provided by clients.

7

The data and results in this report are only used for scientific research, teaching, internal quality control and other activities, and have no proof effect on the society, if there is no CMA mark.

中国认可
国际互认
检测
TESTING
CNAS L12820

Jiangsu standard testing & certification Co.,Ltd.

Inspected Entity: Parcil Distribution

Address: 318 Main St, Suit 101, Evansville, IN 47708. US

The following sample(s) was /were submitted and identified on behalf of the client:

Sample Name: Full Face Respirator Mask Lens for PD-100/PD-101/PT-100/PT-101/ ST-100X

Style/Item No.: PD/PT-lens

P.O./Ref.No.: ---

Batch No.: ---

Producer: ---

Trademark: ---

Country of Origin: ---

Buyer: ---

Reception Date: 08/28/2023

Test Date: 08/28/2023～09/06/2023

Type of Test: Entrusted Test

Sample Quantity: 16 pairs

Sample Description: Types of eye-protectors: Full-facepiece respirator. The lens for PD-100, PD-101, PT-100, PT-101, ST-100X.

Conclusions：See test results summary.

Remarks：---

江苏斯丹德检验认证有限公司
检验检测专用章
Inspection & Testing

Jiangsu Standard Testing & Certification Co., Ltd.

Authorized Signature

1.The standard(s) of criterion：

No.	Standard No.	Standard Item
1	ANSI/ISEA Z87.1-2020	American National Standard for Occupational and Educational Personal Eye and Face Protection Devices

2.The standard(s) of testing：

No.	Standard No.	Standard Item
1	ANSI/ISEA Z87.1-2020	American National Standard for Occupational and Educational Personal Eye and Face Protection Devices

3. Test results summary：

No.	Test Items	Comments
1.1	Optical quality	Pass
1.2	Luminous transmittance	Pass
1.3	Haze-clear lenses only	Pass
1.4	Refractive power	NR
1.5	Astigmatism	NR
1.6	Resolving power	NR
1.7	Prism	NR
1.8	Prism imbalance	NR
1.9	Drop ball impact resistance	Pass
1.10	Ignition	Pass
1.11	Corrosion resistance of metal components	NA
1.12	Minimum coverage area	Pass
1.13	Markings	NR
1.14	Light tightness	NA
1.15	Lateral (Side) coverage	Pass
1.16	High mass impact	Pass
1.17	High velocity impact	NA
1.18	Penetration test (lenses only)	Pass
1.19	Switching index	NA

1.20	Droplet and splash	NA
1.21	Dust hazard	NA
1.22	Fine dust hazard	NA
1.23	Anti-Fog properties	Pass

Detailed test results：

No.	Test Item/ method	Requirements	Unit	Result		Comments
1.1	Optical quality ANSI/ISEA Z87.1-2020 9.1	Protector lenses shall be free of striae, bubbles, waves and other visible defects which would impair the wearer's vision.	---	Meet		Pass
1.2	Luminous transmittance ANSI/ISEA Z87.1-2020 9.2	≥85	%	Right	91.2	Pass
				Left	91.4	
1.3	Haze-clear lenses only ANSI/ISEA Z87.1-2020 9.3	≤3	%	Right	0.00	Pass
				Left	0.02	
1.4	Refractive power ANSI/ISEA Z87.1-2020 9.4	±0.06	m^{-1}	NR		NR
1.5	Astigmatism ANSI/ISEA Z87.1-2020 9.4	≤0.06	m^{-1}	NR		NR
1.6	Resolving power ANSI/ISEA Z87.1-2020 9.4	Pattern 20	---	NR		NR
1.7	Prism ANSI/ISEA Z87.1-2020 9.5	≤0.25	cm/m	NR		NR
1.8	Prism imbalance ANSI/ISEA Z87.1-2020 9.5	Vertical Imbalance	≤0.125	cm/m	NR	NR
		Base In Imbalance	≤0.125			
		Base Out Imbalance	≤0.50	cm/m		
1.9	Drop ball impact resistance ANSI/ISEA Z87.1-2020 9.6	The protector shall fail if any of the following occur when impacted by a 25.4 mm (1 in.) diameter steel ball when dropped from a height of 127cm (50 in.): ▪ lens (lens only) fractures; ▪ piece fully detached from the inner surface; ▪ projectile penetrates the inner surface; ▪ lens not retained.	---	Meet		Pass

No.	Test Item/ method	Requirements	Unit	Result	Comments
1.10	Ignition ANSI/ISEA Z87.1-2020 9.7	Protectors shall not ignite or continue to glow once the rod is removed. Each externally exposed material (exclusive of textiles or elastic bands) shall be tested.	---	Meet	Pass
1.11	Corrosion resistance of metal components ANSI/ISEA Z87.1-2020 9.8	Metal components used in protectors shall be corrosion resistant to the degree that the function of the protector shall not be impaired by the corrosion and the protector can be worn as intended. Lenses and electrical components are excluded from these requirements.	---	No metal components	NA
1.12	Minimum coverage area ANSI/ISEA Z87.1-2020 5.2.4	The frames, lens housings or carriers and lens(es) shall cover in plain view an area of not less than 40 mm (1.57 in.) in width and 33 mm (1.30 in.) in height (elliptical) in front of each eye, centered on the pupil centers of the test headform.	---	Meet	Pass
		Frames, lens housing or carrier and lens(es) designed for small head sizes shall cover in plain view an area of not less than 34 mm (1.34 in.) in width and 28 mm (1.10 in.) in height (elliptical), centered on the pupil centers of the test headform	---	NA	
1.13	Markings ANSI/ISEA Z87.1-2020 5.3	All protectors shall bear the permanent and legible markings in specified locations as shown in Table 3. Markings for lens type and use applications shall be required only when claims for protection against the hazard or indicated use aremade by the manufacturer.	---	NR	NR
		The components of frames that are intended for prescription protector use shall be marked for size in accordance with the system described in ANSI/ISO 7998 / 8624 / 12870. Fronts shall be marked with the A-dimension (eye size) and DBL (distance between lenses). Temples shall be marked with their overall length.			

No.	Test Item/ method	Requirements	Unit	Result	Comments
		Protector markings shall be placed in relatable proximity to each other on the product in the sequence specified below: Manufacturer's marks or logos .Designation of standard (Z87 or Z87-2, for prescription devices) Coverage (See 5.2.4) Optical level (See 6.1) Optional Hazard-Specific Marks, as applicable: impact-protector marking(+)(See7.1) optical radiation marking (See 7.2) droplet and splash marking (See 7.3) dust marking (See 7.4) fine dust marking (See 7.5) Optional Design Marks, as applicable: Anti-fog treatment (See 6.2) Manufacturer's marks or logos are exempt from the proximity requirement if they are clearly present elsewhere on the product. Markings representative of other standards shall not interfere with or be intermixed with the markings required by this standard. Examples of acceptable and not acceptable product markings can be found in Annex L.			
		Prescription lens carriers used behind plano protectors shall be marked with the manufacturer's mark or logo but shall not be marked with other Z87 markings.			
1.14(1)	Light tightness ANSI/ISEA Z87.1-2020 9.9	The welding protector shall be held firmly against the seal of the test apparatus and examined for direct light leakage between the lenses, gaskets or other components. The test shall be performed in a darkened room to verify a light tight design when viewed from any angle. One complete device shall be tested.	---	NA	NA

No.	Test Item/ method	Requirements	Unit	Result	Comments
1.15	Lateral (Side) coverage ANSI/ISEA Z87.1-2020 9.10	Impact rated protectors shall provide continuous lateral coverage (i.e. no openings greater than 1.5 mm (0.06 in.) in diameter) from the vertical plane of the lenses tangential to a point not less than 10 mm (0.39 in.) posterior to the corneal plane and not less than 10 mm (0.39 in.) in height (or 8 mm(0.32 in.) for the smaller headform) above and not less than 10 mm (0.39 in.) in height (or 8 mm(0.32 in.) for the smaller headform) below the horizontal plane centered on the eyes of the head-form. The probe shall not contact the headform within the defined coverage area. (See Annex D).	---	Meet	Pass
1.16	High mass impact ANSI/ISEA Z87.1-2020 9.11	The complete device shall meet the protector acceptance criteria when impacted by a pointed projectile weighing a minimum of 500 g (17.6 oz)dropped from a height of at least 127 cm (50.0 in.). A complete device shall fail if any of the following occurs: ▪ any part, fragment or material visible to the unaided eye becomes detached from the inner surface of any complete device, as determined by inspection of the device or of the contact paste; ▪ fracture; ▪ penetration of the inner surface either by the projectile passing completely through the lens, frame or housing component, or by rupture of the inner lens surface; ▪ lens not retained.	---	Meet	Pass

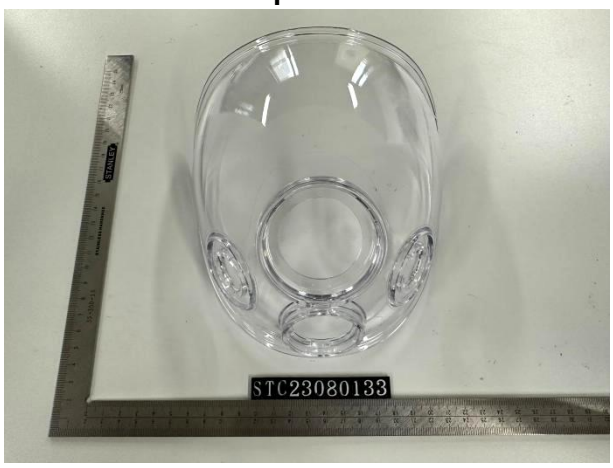
No.	Test Item/ method	Requirements	Unit	Result	Comments
1.17	High velocity impact ANSI/ISEA Z87.1-2020 9.12	The complete device shall meet the protector acceptance criteria when impacted by either steel ball traveling at its respective velocities specified in Table 6. A complete device shall fail if any of the following occurs: ▪ any part, fragment or material visible to the unaided eye becomes detached from the inner surface of any complete device, as determined by inspection of the device or of the contact paste; ▪ fracture; ▪ penetration of the inner surface either by the projectile passing completely through the lens, frame or housing component, or by rupture of the inner lens surface; ▪ lens not retained; ▪ for the high-velocity test, the unaided eye observer any piece adhering to the contact paste, or observes contact paste on the projectile or complete device.	---	NA	NA
1.18	Penetration test (lenses only) ANSI/ISEA Z87.1-2020 9.13	Lenses for all complete devices shall meet the protector acceptance criteria when penetrated by a weighted needle with minimum a total weight of 44.2 g (1.56 oz) dropped from a height of at least 127 cm (50.0 in.). A complete device shall fail if any of the following occurs: ▪ any part, fragment or material visible to the unaided eye becomes detached from the inner surface of any complete device, as determined by inspection of the device or of the contact paste; ▪ fracture; ▪ penetration of the inner surface either by the projectile passing completely through the lens, frame or housing component, or by rupture of the inner lens	---	Meet	Pass

No.	Test Item/ method	Requirements	Unit	Result	Comments
		surface; ▪ lens not retained.			
1.19(1)	Switching index ANSI/ISEA Z87.1-2020 9.15	The switching index from the lightest state of the automatic darkening welding filters to the darkest state of the device shall meet the requirements of Table 12 when tested at temperatures of: . -5℃±2 ℃ (23 ℉±3.6 ℉); 23℃±2 ℃ (73.4 ℉±3.6 ℉); and 55℃±2 ℃ (131 ℉±3.6 ℉).	---	NA	NA
1.20	Droplet and splash ANSI/ISEA Z87.1-2020 9.17	When tested in accordance with Section 9.17.1, the droplets and/or liquid splash shall not cause a red coloration within either of the two circles described in the test method. When tested in accordance with Section 9.17.2, the laser beam shall not make direct contact with any point on the eye-region rectangle without first being intercepted by the faceshield.	---	NA	NA
1.21(1)	Dust hazard ANSI/ISEA Z87.1-2020 9.18	The ratio of the mean reflectance after exposure in the dust chamber to the mean reflectance before exposure shall not be less than 0.80.	---	NA	NA
1.22(1)	Fine dust hazard ANSI/ISEA Z87.1-2020 9.19	No red coloration shall be observed within either of the two circles described in the test method.	---	NA	NA
1.23(1)	Anti-Fog properties ANSI/ISEA Z87.1-2020 9.20	The lenses of protectors marked in accordance with Table 3 as having anti-fog properties shall remain free from fogging for a minimum of 8 seconds.	---	Meet	Pass

Note： 1.---= Not Provided, NA=Not Applicable, NR= Not Required.

2. (1): The test items are not within the scope of CNAS recognition.

Sample Photo



*** End of Report ***