EU Type Examination Certificate

This is to certify that:

Polarseal Tapes and Conversions Ltd
Guildford Road Industrial Estate
Guildford Road
Farnham
GU9 9PZ
United Kingdom

Holds Certificate Number: CE 728263

In respect of:

Model EctoVise Face Visor Protective Eyewear
To technical specification to Annex II (EHSR) of the PPE Regulation (EU) 2016/425
PPE for use by healthcare professionals as per Commission recommendation 2020/403

on the basis that BSI carried out the relevant Type Examination procedures under the requirements with the Regulation (EU) 2016/425 of the European Parliament and Council relating to Personal Protective Equipment Regulation (PPE) Annex V (Module B) and meets the relevant health and safety requirements specified in Annex II

For and on behalf of BSI, a Notified Body for the above Regulation (Notified Body Number 0086):

Chris Lewis - Certification Director, Product Certification

First Issued: 2020-05-04
Latest Issue: 2020-05-04

Effective Date: 2020-05-04
Expiry Date: 2021-05-04

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BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
A member of BSI Group of Companies.

EU Type Examination Certificate

No. CE 728263

Product Specification

Product Name:	Face Visor
Product Type:	Eye protection for use by healthcare professionals
Model:	EctoVise
Technical Specification:	BSI 2020/403 eye and face protection specification, Technical Specification to satisfy Annex II of the PPE Regulation (EU) 2016/425
Product Description:	The eye and face protector listed on this certificate is for use by healthcare workers, first responders and other personnel involved in the efforts to contain the COVID-19 virus and avoid its further spread. The face visor comprises a clear sheet secured to a woven elasticated headband, with a foam cushion to sit on the brow of the wearer. The product covered by this certificate is not approved for industrial applications and the certificate is only valid as long as EU Commission recommendation sheet 2020/403 remains applicable.
Product Assessments:	BSI 2020/403 Eye Protection Technical Specification

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EU Type Examination Certificate

No. CE 728263

Certificate Administration Details

Technical File Reference: Technical File for EctoVise

Certificate Amendment Record:

Issue date	Comments	BSI Review No.
May 2020	First issue.	0086:20:3202378

Certificate validity

The Certificate holder is responsible for ensuring that the Notified Body is advised of changes to any aspect of the overall process utilised in the manufacture of the product, failure to do so could invalidate the Certificate in respect of product manufactured following the introduction of such changes.

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Test Report 3252473.

Polarseal Tapes and Conversions Ltd

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Introduction.

This report has been prepared by S Macdonnell and relates to the activity detailed below:

Job/Registration Details		Client Details
Job number:	**3252473**	Polarseal Tapes and Conversions Ltd
Job type:	Testing Samples Submitted	Guildford Road Industrial Estate
Start Date:	6 July 2020	Guildford Road
Test type:	Type	Farnham
Sample IDs:	10189420 and 10191252	GU9 9PZ
Registration:	**CE 731821**	United Kingdom
Scheme:	Personal Eye Protection	
Protocol:	PP123	
Scheme Mgr:	Nathan Shipley	

The report has been approved for issue by M Mayo – Testing Team Manager

Approved For Issue	
	Issue Date: 21 July 2020

Objectives.

This is an independent type test evaluation of the test item, to determine conformity with the entirety of the specified Standard or Standards, carried out in accordance with the relevant scheme requirements.

Product Scope.

Face shield model Ectovise

Report Summary.

The samples were received on 3 April 2020 and 17 June 2020 and the testing was started on 6 July 2020.

Limited clauses were previously assessed in report 3174142.

The samples submitted complied with the requirements of the test work conducted.

Test Samples.

Sample Id	ER Number	Description
1	10189420 10191252	6 x face shields model Ectovise 16 x face shields model Ectovise

Test Requirements.

BS EN 166:2002 + Results Table - Personal Eye Protection

Clause	Requirements	
6	**Design and Manufacturing Requirements**	
6.1	**General construction** Eye-protectors shall be free from projections, sharp edges or other defects which are likely to cause discomfort or injury during use. (1) Samples tested in report 3174142.	Pass (1)
6.2	**Materials** No parts of the eye-protector which are in contact with the wearer shall be made of materials which are known to cause any skin irritation. **Note:-** **Manufacturer's responsibility to use materials not known to cause skin irritation when in contact with the wearer of the eye-protector.**	N/T
6.3	**Headbands** Headbands, when used as the principal means of retention, shall be at least 10 mm wide over any portion which may come into contact with the wearer's head. Headbands shall be adjustable or self-adjusting. (1) Samples tested in report 3174142.	Pass (1)
7	**Basic, particular and optional requirements**	
7.1	**Basic requirements**	
7.1.1	**Field of vision** The size of the field of vision is defined in conjunction with the appropriate head-form described in clause 17 of EN 168:2001. (1) Samples tested in report 3174142.	Pass (1)
7.1.2	**Optical requirements**	
7.1.2.1	**Spherical, astigmatic and prismatic refractive powers**	
7.1.2.1.1	**Unmounted oculars covering one eye** For non-corrective oculars testing shall be in accordance with clause 3.1 of EN 167:200 , and for corrective oculars in accordance with EN ISO 8980-3 . **Not applicable to style of eye-protector.**	N/A

Clause	Requirements	
7.1.2.1.2	**Mounted oculars and unmounted oculars covering both eyes** The refractive power characteristics of mounted oculars or unmounted oculars covering both eyes shall be measured by the method specified in clause 3.2 of EN 167:2001 at the visual centre of the ocular. (1) Samples tested in report 3174142.	Pass (1)
7.1.2.1.3	**Cover plates** The refractive powers of cover plates shall comply with the tolerances for optical class 1 given in Tables 2 and 3. **Not applicable to style of eye-protector.**	N/A
7.1.2.2	**Transmittance**	
7.1.2.2.1	**Oculars without filtering action** Testing shall be in accordance with clause 6 of EN 167:2001.	Pass
7.1.2.2.2	**Oculars with filtering action (filters) and housings for oculars with filtering action.** Testing shall be in accordance with clause 6 of EN 167:2001. **Not applicable to style of eye-protector.**	N/A
7.1.2.2.3	**Variations in transmittance (Oculars without filtering action are exempt from this requirement)**	
7.1.2.2.3.1	**Oculars without corrective effect** Testing shall be in accordance with clause 7 of EN 167:2001. **Not applicable to style of eye-protector.**	N/A
7.1.2.2.3.2	**Oculars with corrective effect (prescription oculars)** The requirements of 7.1.2.2.3.1 shall also apply to prescription oculars, with the provision that variations in luminous transmittance which are due to thickness variations inherent in the design of the ocular are not taken into account, providing the luminous transmittance at no point deviates by more than a factor of 2,68 (one shade number) from its value at the visual centre. **Not applicable to style of eye-protector.**	N/A
7.1.2.3	**Diffusion of light** Testing shall be in accordance with one of the reference methods specified in clause 4 of EN 167:2001.	Pass
7.1.3	**Quality of material and surface** Testing shall be in accordance with clause 5 of EN 167:2001. Except for a marginal area 5 mm wide, oculars shall be free from any significant defects likely to impair vision in use, such as bubbles, scratches, inclusions, dull spots, pitting, mould marks, scouring, grains, pocking, scaling and undulation. (1) Samples tested in report 3174142.	Pass (1)

Clause	Requirements	
7.1.4	**Robustness**	
7.1.4.1	**Minimum robustness** Testing shall be in accordance with clause 4 of EN 168:2001. **Not applicable to style of eye-protector.**	N/A
7.1.4.2	**Increased robustness**	
7.1.4.2.1	**Unmounted oculars** Testing shall be in accordance with clause 3.1 of EN 168:2001. **Not applicable to style of eye-protector.**	N/A
7.1.4.2.2	**Complete eye-protectors and frames** Testing shall be in accordance with clause 3.2 of EN 168:2001.	Pass
7.1.5	**Resistance to ageing**	
7.1.5.1	**Stability at an elevated temperature** Testing shall be in accordance with clause 5 of EN 168:2001.	Pass
7.1.5.2	**Resistance to ultraviolet radiation (oculars only)** Testing shall be in accordance with clause 6 of EN 168:2001.	Pass
7.1.6	**Resistance to corrosion** After having undergone the test for resistance to corrosion specified in clause 8 of EN 168:2001, all metal parts of the eye-protector shall display smooth surfaces, free from corrosion, when they are examined by a trained observer. **Not applicable to style of eye-protector.**	N/A
7.1.7	**Resistance to ignition** Eye-protectors shall be tested in accordance with the method specified in clause 7 of EN 168:2001 and shall be considered to be satisfactory if no part of the eye-protector ignites or continues to glow after removal of the steel rod.	Pass
7.2	**Particular requirements**	
7.2.1	**Protection against optical radiation**	
7.2.1.1	**Welding filters** In accordance with EN 169. **Not applicable to style of eye-protector.**	N/A
7.2.1.2	**Ultraviolet filters** In accordance with EN 170. **Not applicable to style of eye-protector.**	N/A

Clause	Requirements	
7.2.1.3	**Infrared filters** In accordance with EN 171. **Not applicable to style of eye-protector.**	N/A
7.2.1.4	**Sunglare filters for industrial use** In accordance with EN 172. **Not applicable to style of eye-protector.**	N/A
7.2.1.5	**Welding Filters with switchable luminous transmittance** In accordance with EN 379. **Not applicable to style of eye-protector.**	N/A
7.2.2	**Protection against high-speed particles** Testing shall be in accordance with clause 9 EN 168:2001 and one of the speeds given in Table 7. **Not applicable to style of eye-protector.**	N/A
7.2.3	**Protection against molten metals and hot solids** Testing shall be in accordance with clauses 10 and 11 of EN 168:2001. **Not applicable to style of eye-protector.**	N/A
7.2.4	**Protection against droplets and splashes of liquids** Eye-protectors for use against droplets (goggles) and splashes of liquids (face-shields) shall be tested in accordance with the methods specified in clause 12 of EN 168:2001. The results shall be considered to be satisfactory if: a) no pink or crimson colouration appears in the ocular regions defined by the two circles when assessing goggles for protection against droplets. No account shall be taken of any such colouration up to a distance of 6 mm inside the edges of the eye-protector; **Not applicable to style of eye-protector.** b) face-shields cover the eye-region rectangle of the appropriate head-form as described in clause 10.2.2.2 of EN 168:2001 as assessed in accordance with 10.2 of EN 168:2001. (1) Samples tested in report 3174142. Note:- Area of coverage for faceshields assessed using non-standard test equipment.	N/A Pass (1)
7.2.5	**Protection against large dust particles** Eye-protectors for use against large dust particles shall be tested in accordance with the method specified in clause 13 of EN 168:2001. The result shall be considered to be satisfactory if the reflectance after the test is not less than 80 % of its value before the test. **Not applicable to style of eye-protector.**	N/A

Clause	Requirements	
7.2.6	**Protection against gases and fine dust particles** Eye-protectors for use against gases and fine dust particles shall be tested in accordance with the method specified in clause 14 of EN 168:2001. They shall be regarded as satisfactory if no pink or crimson coloration appears in the area covered by the eye-protector. No account shall be taken of any such coloration up to a distance of 6 mm inside the edges of the eye-protector. **Not applicable to style of eye-protector.**	N/A
7.2.7	**Protection against short circuit electric arc** Eye-protectors for protection against short circuit electric arc shall be face-shields only. They shall have no exposed metal parts and all external edges of the protector shall be radiussed, chamfered or otherwise treated to eliminate sharp edges. Oculars shall have a minimum thickness of 1,4 mm and a scale number of 2-1,2 or 3-1,2. Face-shields shall satisfy the requirements for area of coverage defined in clause 6.2.4 (b) and shall have a viewing area with a minimum vertical centre line depth of 150 mm when mounted in the appropriate housing. **Not applicable to style of eye-protector.**	N/A
7.2.8	**Lateral Protection** Testing shall be in accordance with clause 19 of EN 168:2001. (1) Samples tested in report 3174142.	Pass (1)
7.3	**Optional requirements**	
7.3.1	**Resistance to surface damage by fine particles** Testing shall be in accordance with clause 15 of EN 168:2001. **Not applicable to style of eye-protector.**	N/A
7.3.2	**Resistance to fogging of oculars** Testing shall be in accordance with clause 16 of EN 168:2001. **Not applicable to style of eye-protector.**	N/A
7.3.3	**Oculars with enhanced reflectance in the infrared** Testing shall be accordance with clause 8 of EN 167:2001. **Not applicable to style of eye-protector.**	N/A
7.3.4	**Protection against high speed particles at extremes of temperature** Testing shall be in accordance with clause 9 of EN 168:2001. **Not applicable to style of eye-protector.**	N/A
9	**Marking**	N/T
10	**Information supplied by the manufacturer**	N/T
Results table	**Actual test results** *See Table A - BS EN 166 2002*	

Glossary of Terms.

PASS: Complies. Tested by BSI engineers at BSI laboratories.

PASS1: Complies. Witnessed by BSI engineers in manufacturers laboratory.

PASS2: Complies. Tests carried out by third party lab; results accepted by BSI.

PASS*: Report resulted in uncertainty and states that Compliance is more probable than non-compliance.

FAIL: Non compliance – Product does not meet the requirements of this clause.

FAIL*: Report resulted in uncertainty and states that Non-compliance is more probable than compliance.

N/A: Not applicable to design under consideration.

N/T: Not tested in this report.

Conditions of Issue.

This Test Report is issued subject to the conditions stated in current issue of 'BSI Terms of Service'. The results contained herein apply only to the particular sample(s) tested and to the specific tests carried out, as detailed in this Test Report. The issuing of this Test Report does not indicate any measure of Approval, Certification, Supervision, Control or Surveillance by BSI of any product. No extract, abridgement or abstraction from a Test Report may be published or used to advertise a product without the written consent of BSI, who reserve the absolute right to agree or reject all or any of the details of any items or publicity for which consent may be sought.

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UKAS TESTING
0135

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Unless otherwise stated, any results not obtained from testing in a BSI laboratory are outside the scope of our UKAS accreditation.

Supporting Data – Test Results

Table A - BS EN 166 2002

Test Results.

CLAUSE 7.1.2.1.2 OPTICAL REQUIREMENTS (Oculars Without Corrective Effect)
Mounted and unmounted oculars covering both eyes
Requirements

Optical Class	Spherical Refractive Power (1)	Astigmatic Refractive Power (1)	Difference in Prismatic Refractive Power (2)		
			Horizontal		Vertical
			Base Out	Base In	
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	1.00	0.25	0.25
	- 0.25	0.25	1.00	0.25	0.25

Measurements of Spherical and Astigmatic Power and Difference in Prismatic Refractive Power
Measurements made by the method specified in EN 167:2001 Clause 3.2 (3)

Sample Left (L) Right (R)		Spherical and Astigmatic Power (1)		Resultant Spherical (1)	Resultant Astigmatic (1)	Difference in Prismatic Refractive Power (2)		
						Horizontal		Vertical
		D_1	D_2	$\frac{D_1 + D_2}{2}$	$(D_1 - D_2)$	Base	Power	Power
1	L	-0.01	-0.01	-0.01	0.0			
	R	0.0	-0.01	-0.005	0.01	Out	0.20	0.0
2	L	-0.01	-0.01	-0.01	0.0			
	R	0.0	0.0	0.0	0.0	Out	0.15	0.0
3	L	0.0	0.0	0.0	0.0			
	R	-0.01	-0.01	-0.01	0.0	Out	0.15	0.0

D_1 = horizontal bars readings D_2 = vertical bars readings

Optical Class: 1

(1) Dioptres per metre.
(2) Prism dioptres cm per metre.
(3) Samples tested in report 3174142.

Test Results (Continued).

7.1.2.2.1 Transmittance (Oculars without Filtering Action) and

7.1.5.2 Resistance to Ultraviolet Radiation (1)

Measurements made by the method specified in EN 167:2001 Clause 6

Sample No	Percentage Transmissions					
	Left			Right		
	Prior to UV ageing (>74.4%)	Post UV ageing	Relative Difference ± 5% max	Prior to UV ageing (>74.4%)	Post UV ageing	Relative Difference ± 5% max
1	86.8	86.5	0.35	86.9	86.6	0.35
2	86.9	86.8	0.12	86.5	86.5	0.0
3	86.7	86.7	0.0	86.7	85.7	1.15

(1) Assessment of oculars only.

7.1.2.3 Diffusion of Light

Measurements made by the method specified in EN 167:2001 Clause 4.2.2.1

Results

		Diffusion (1) (cd/m².lx)
Sample 1	Left	0.469
	Right	0.383
Sample 2	Left	0.386
	Right	0.362
Sample 3	Left	0.199
	Right	0.234

Maximum permitted values
a) Welding filters: 1.00
b) High-speed particle protection oculars: 0.75
c) Minimum and increased robustness oculars: 0.50

Test Results (Continued).

7.1.4.2.2 Increased Robustness – Complete Eye-Protectors

Tested in accordance with the requirements of EN 168:2001 Clause 3.2

Sample No BSI	**Impact site** (1) 1	2	3	4	**Conditioning (◦C)**	**Comments**
1	√	-	-	-	+55	Pass
2	√	-	-	-	-5	Pass
3	√	-	-	-	+55	Pass
4	√	-	-	-	-5	Pass
5	-	√	-	-	+55	Pass
6	-	√	-	-	-5	Pass
7	-	√	-	-	+55	Pass
8	-	√	-	-	-5	Pass
9	-	-	√	-	+55	Pass
10	-	-	√	-	-5	Pass
11	-	-	-	√	+55	Pass
12	-	-	-	√	-5	Pass

The following comments are applicable:-
1) Impact sites above correspond to the following:-
1 Left eye frontal 2 Right eye frontal 3 Left eye side 4 Right eye side

Additionally it was observed during the testing samples, that all impact points on the headform were covered by eye protectors

7.1.5.1 Stability at an Elevated Temperature Pass

Conditioning in accordance with Clause 5 of EN168:2001 was conducted.
There was no apparent deformation present after conditioning.

Test Results (Continued).

7.1.5.2 Resistance to Ultraviolet Radiation

Conditioning was conducted in accordance with Clause 6 of EN 168:2001

7.1.2.3 Diffusion of Light (U.V. Ageing)

Measurements made by method specified in EN 167:2001 Clause 4.2.2.1

Results

		Diffusion (1) (cd/m².lx)
Sample 1	Left	0.379
	Right	0.343
Sample 2	Left	0.291
	Right	0.359
Sample 3	Left	0.384
	Right	0.398

Maximum permitted values
a) Welding filters: 1.00
b) High-speed particle protection oculars: 0.75
c) Minimum and increased robustness oculars: 0.50

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Test Results (Continued).

7.2.4 Protection Against Droplets and Splashes of Liquid

Requirement (1)	
Eye protectors for use against droplets (goggles) and splashes of liquids (faceshields) shall be tested in accordance with the methods specified in Clause 12 of BS EN 168:2001	Pass (2)

(1) Area of coverage for faceshields assessed using non- standard test equipment.
(2) Samples tested in report 3174142.

7.2.8 Lateral Protection

Requirement	
Sample Nos: 4-6 (1)	Pass (2)
When assessed, the eye protector covered the lateral protection region on the headform in accordance with Clause 19 of EN 168:2001.	

(1) Adjusted by BSI as required to provide best fit on headform.
(2) Samples tested in report 3174142.

*** End of Report ***

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BAO YUAN PACKING (GUANGZHOU) CO., LTD

SOUTH SIDE OF ZHONGCHUANG ROAD,ZHONGCUN TOWN,PANYU DISTRICT,GUANGZHOU CITY

The following sample(s) was/were submitted and identified on behalf of the clients as :
PET double-sided antifoggingsheet

SGS Job No. :	GZIN2004013696PC - GZ
Date of Sample Received :	14 Apr 2020
Testing Period :	14 Apr 2020 - 17 Apr 2020
Test Requested :	Selected test(s) as requested by client.
Test Method :	Please refer to next page(s).
Test Results :	Please refer to next page(s).
Conclusion :	Based on the performed tests on submitted sample(s), the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP) , Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) , and Diisobutyl phthalate (DIBP) comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Signed for and on behalf of
SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

scan to see the report

CANML2005050303

Zmguan

Zm guan
Approved Signatory

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SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch Testing Center Chemical Laboratory.

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Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	CAN20-050503.001	Colorless transparent plastic sheet

Remarks :

(1) 1 mg/kg = 1 ppm = 0.0001%

(2) MDL = Method Detection Limit

(3) ND = Not Detected (< MDL)

(4) "-" = Not Regulated

RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU

Test Method : With reference to IEC 62321-4:2013+A1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017 , IEC 62321-6:2015 and IEC 62321-8:2017, analyzed by ICP-OES , UV-Vis and GC-MS .

Test Item(s)	Limit	Unit	MDL	*001*
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1,000	mg/kg	2	ND
Mercury (Hg)	1,000	mg/kg	2	ND
Hexavalent Chromium (CrVI)	1,000	mg/kg	8	ND
Sum of PBBs	1,000	mg/kg	-	ND
Monobromobiphenyl	-	mg/kg	5	ND
Dibromobiphenyl	-	mg/kg	5	ND
Tribromobiphenyl	-	mg/kg	5	ND
Tetrabromobiphenyl	-	mg/kg	5	ND
Pentabromobiphenyl	-	mg/kg	5	ND
Hexabromobiphenyl	-	mg/kg	5	ND
Heptabromobiphenyl	-	mg/kg	5	ND
Octabromobiphenyl	-	mg/kg	5	ND
Nonabromobiphenyl	-	mg/kg	5	ND
Decabromobiphenyl	-	mg/kg	5	ND
Sum of PBDEs	1,000	mg/kg	-	ND
Monobromodiphenyl ether	-	mg/kg	5	ND
Dibromodiphenyl ether	-	mg/kg	5	ND
Tribromodiphenyl ether	-	mg/kg	5	ND
Tetrabromodiphenyl ether	-	mg/kg	5	ND
Pentabromodiphenyl ether	-	mg/kg	5	ND

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Test Item(s)	Limit	Unit	MDL	*001*
Hexabromodiphenyl ether	-	mg/kg	5	ND
Heptabromodiphenyl ether	-	mg/kg	5	ND
Octabromodiphenyl ether	-	mg/kg	5	ND
Nonabromodiphenyl ether	-	mg/kg	5	ND
Decabromodiphenyl ether	-	mg/kg	5	ND
Dibutyl phthalate (DBP)	1,000	mg/kg	50	ND
Butyl benzyl phthalate (BBP)	1,000	mg/kg	50	ND
Bis (2-ethylhexyl) phthalate (DEHP)	1,000	mg/kg	50	ND
Diisobutyl Phthalates (DIBP)	1,000	mg/kg	50	ND

Notes :

(1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.IEC 62321 series is equivalent to EN 62321 series https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101::::FSP_ORG_ID,FSP_LANG_ID:1258637,25

(2) The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, from 22 July 2021.

(3) The restriction of DEHP, BBP, DBP and DIBP shall not apply to toys which are already subject to the restriction of DEHP, BBP, DBP and DIBP through entry 51 of Annex XVII to Regulation (EC) No 1907/2006.

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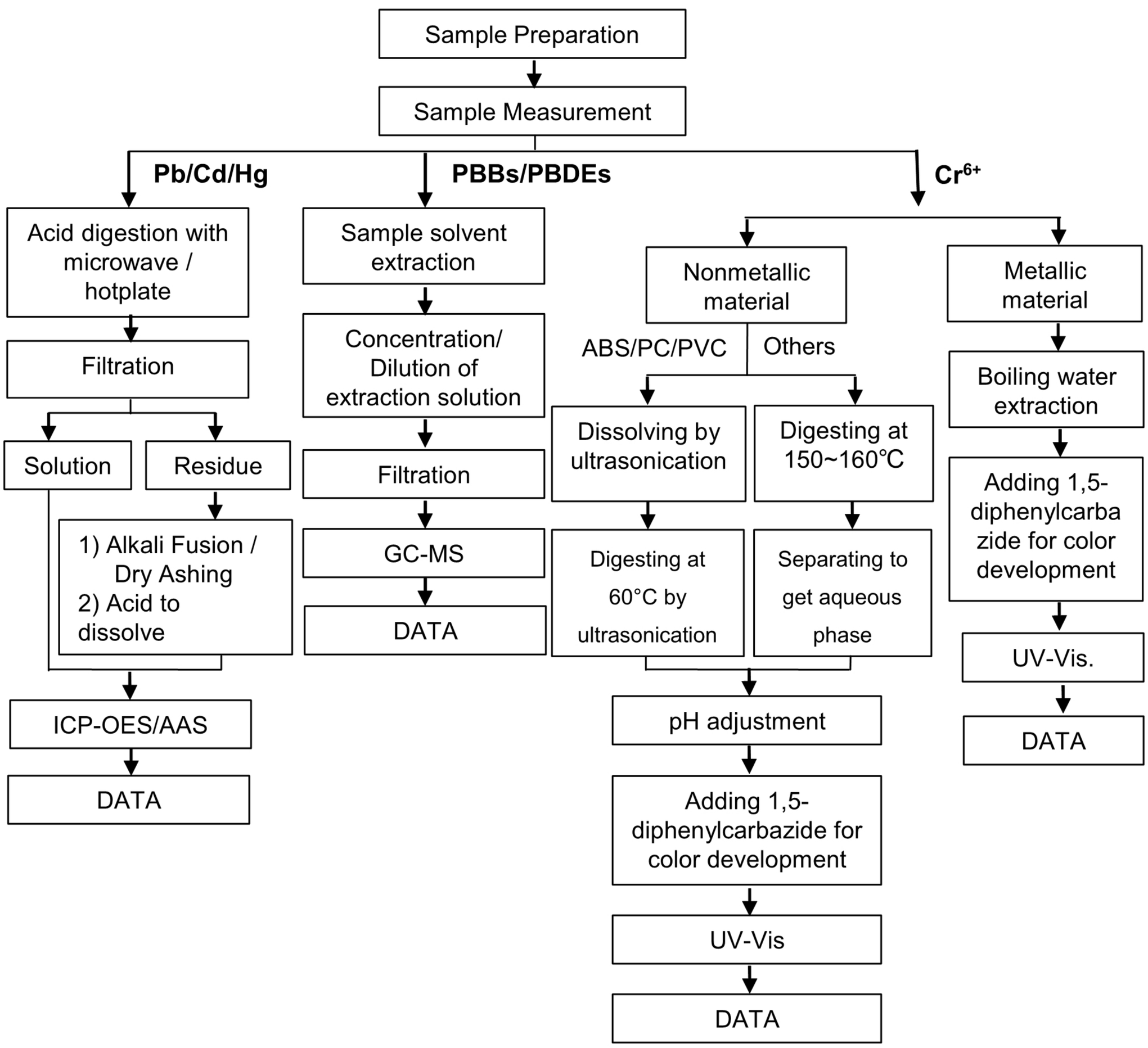
Pb/Cd/Hg/Cr^{6+}/PBBs/PBDEs Testing Flow Chart

1) These samples were dissolved totally by pre -conditioning method according to below flow chart. (Cr^{6+} and PBBs/PBDEs test method excluded).



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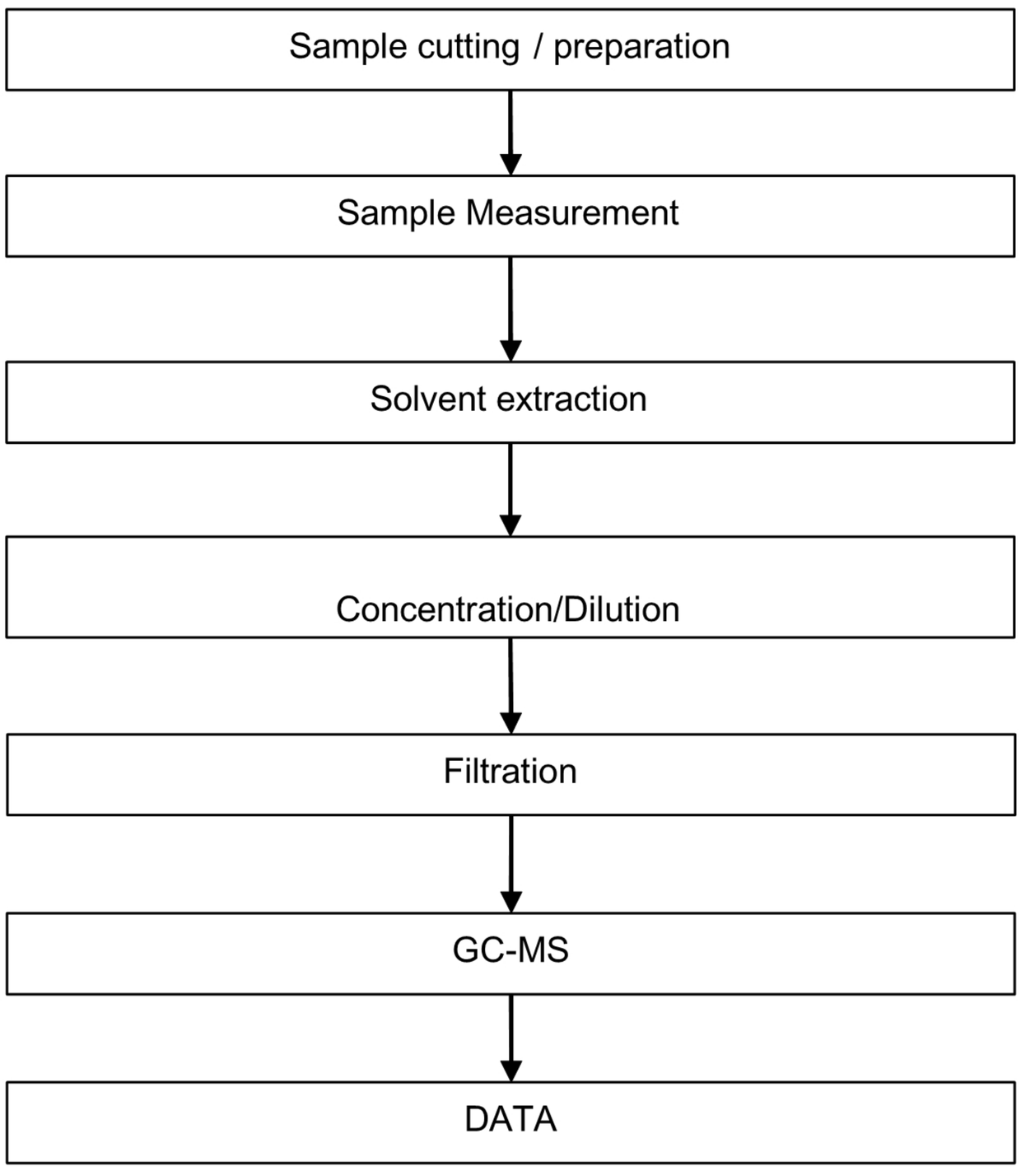
Phthalates Testing Flow Chart



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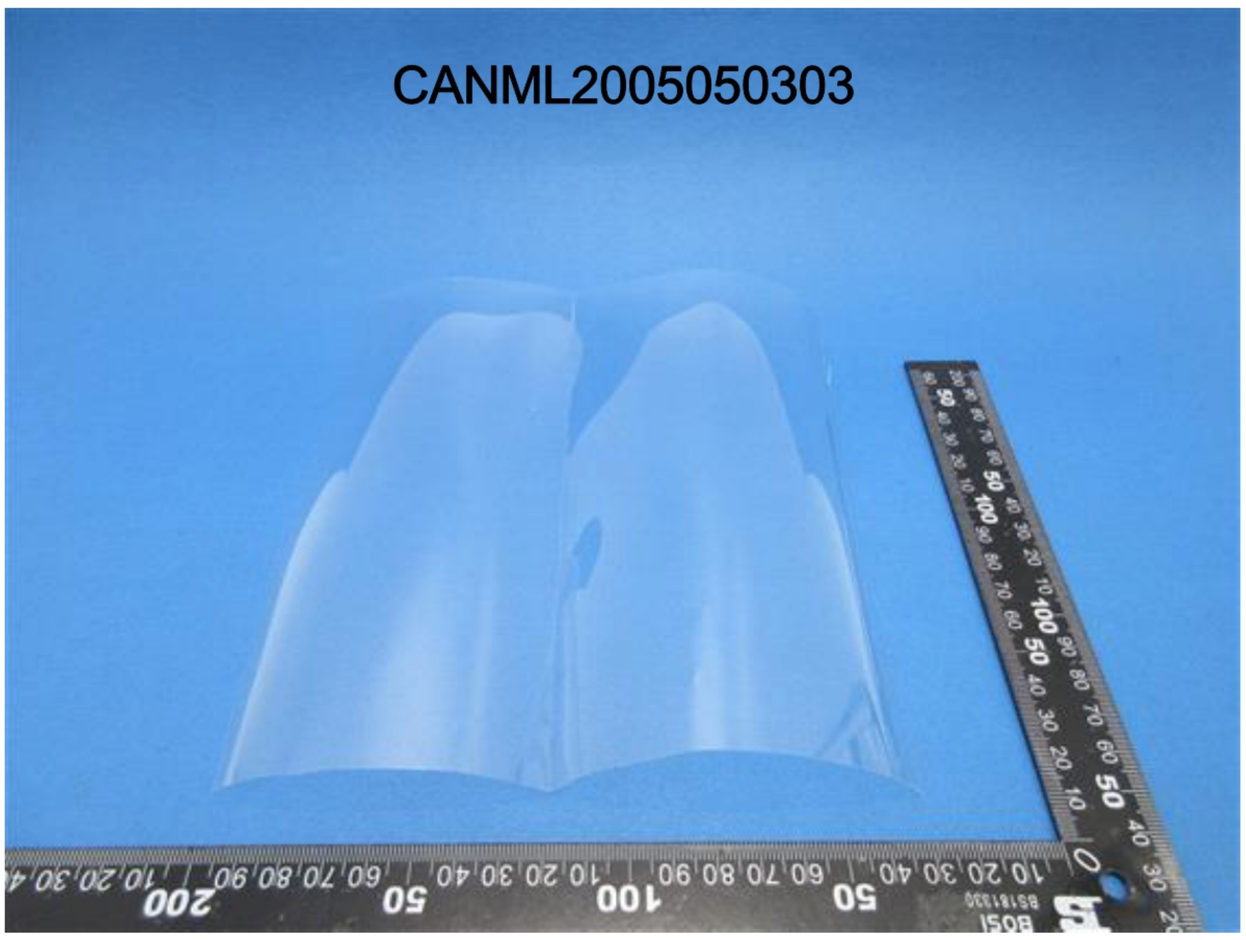
Sample photo:



CAN20-050503.001

SGS authenticate the photo on original report only

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测试报告

No. CANML2005050304　　日期: 2020年04月28日　第1页,共6页

宝元（广州）印刷包装有限公司
广州市番禺区钟村街钟创路50号

以下测试之样品是由申请者所提供及确认 : PET双面防雾片

SGS工作编号 :	GZIN2004013696PC - GZ
样品接收日期 :	2020年04月14日
测试周期 :	2020年04月14日 - 2020年04月17日
测试要求 :	根据客户要求测试
测试方法 :	请参见下一页
测试结果 :	请参见下一页
结论 :	基于所送样品进行的测试，镉、铅、汞、六价铬、多溴联苯(PBBs)、多溴二苯醚(PBDEs)、邻苯二甲酸酯（如邻苯二甲酸二丁酯 (DBP)、邻苯二甲酸丁苄酯(BBP)、邻苯二甲酸二(2-乙基已基)酯(DEHP)和邻苯二甲酸二异丁酯(DIBP)）的测试结果符合欧盟RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863的限值要求。

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关正孟

Zm guan关正孟
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测试结果 :

测试样品描述 :

样品编号	SGS样品ID	描述
SN1	CAN20-050503.001	无色透明塑料片

备注 :

(1) 1 mg/kg = 1 ppm = 0.0001%

(2) MDL = 检测极限值

(3) ND = 未检出 (< MDL)

(4) "-" = 未规定

RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863

测试方法 : 参考IEC 62321-4:2013+A1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017 , IEC 62321-6:2015 和 IEC 62321-8:2017, 采用 ICP-OES , UV-Vis 和 GC-MS 进行分析 。

测试项目	限值	单位	MDL	*001*
镉 (Cd)	100	mg/kg	2	ND
铅 (Pb)	1,000	mg/kg	2	ND
汞 (Hg)	1,000	mg/kg	2	ND
六价铬(Cr(VI))	1,000	mg/kg	8	ND
多溴联苯之和(PBBs)	1,000	mg/kg	-	ND
一溴联苯	-	mg/kg	5	ND
二溴联苯	-	mg/kg	5	ND
三溴联苯	-	mg/kg	5	ND
四溴联苯	-	mg/kg	5	ND
五溴联苯	-	mg/kg	5	ND
六溴联苯	-	mg/kg	5	ND
七溴联苯	-	mg/kg	5	ND
八溴联苯	-	mg/kg	5	ND
九溴联苯	-	mg/kg	5	ND
十溴联苯	-	mg/kg	5	ND
多溴二苯醚之和(PBDEs)	1,000	mg/kg	-	ND
一溴二苯醚	-	mg/kg	5	ND
二溴二苯醚	-	mg/kg	5	ND
三溴二苯醚	-	mg/kg	5	ND
四溴二苯醚	-	mg/kg	5	ND
五溴二苯醚	-	mg/kg	5	ND

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测试项目	限值	单位	MDL	*001*
六溴二苯醚	-	mg/kg	5	ND
七溴二苯醚	-	mg/kg	5	ND
八溴二苯醚	-	mg/kg	5	ND
九溴二苯醚	-	mg/kg	5	ND
十溴二苯醚	-	mg/kg	5	ND
邻苯二甲酸二丁酯 (DBP)	1,000	mg/kg	50	ND
邻苯二甲酸丁苄酯(BBP)	1,000	mg/kg	50	ND
邻苯二甲酸二(2-乙基已基)酯(DEHP)	1,000	mg/kg	50	ND
邻苯二甲酸二异丁酯(DIBP)	1,000	mg/kg	50	ND

备注：

(1)最大允许极限值引用自RoHS指令(EU) 2015/863 。IEC 62321系列等同于 EN 62321系列 https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101::::FSP_ORG_ID,FSP_LANG_ID:1258637,25

(2) 2021年7月22号开始，DEHP, BBP, DBP 和 DIBP的限制适用于医疗器械，包括体外医疗器械，监控仪表，包括工业监测和控制仪器。

(3) DEHP, BBP, DBP 和 DIBP的限制不适用于玩具产品，因为No.1907/2006附录XVII第51条已对玩具产品中的DEHP, BBP, DBP 和 DIBP含量进行了限制。

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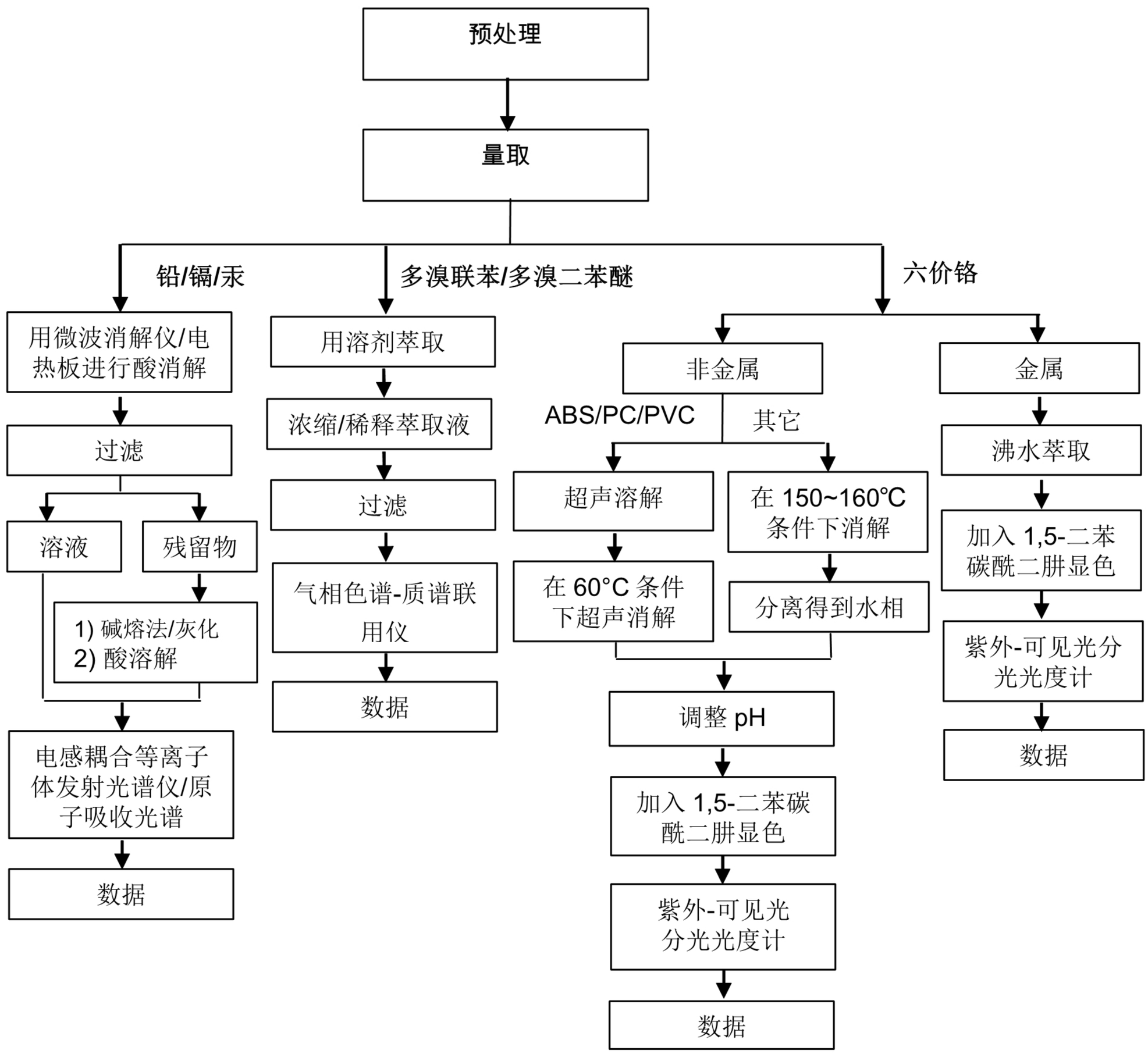
附件

Pb/Cd/Hg/Cr^{6+}/PBBs/PBDEs 测试流程图

1）样品按照下述流程被完全消解（六价铬和多溴联苯/多溴二苯醚测试除外）。



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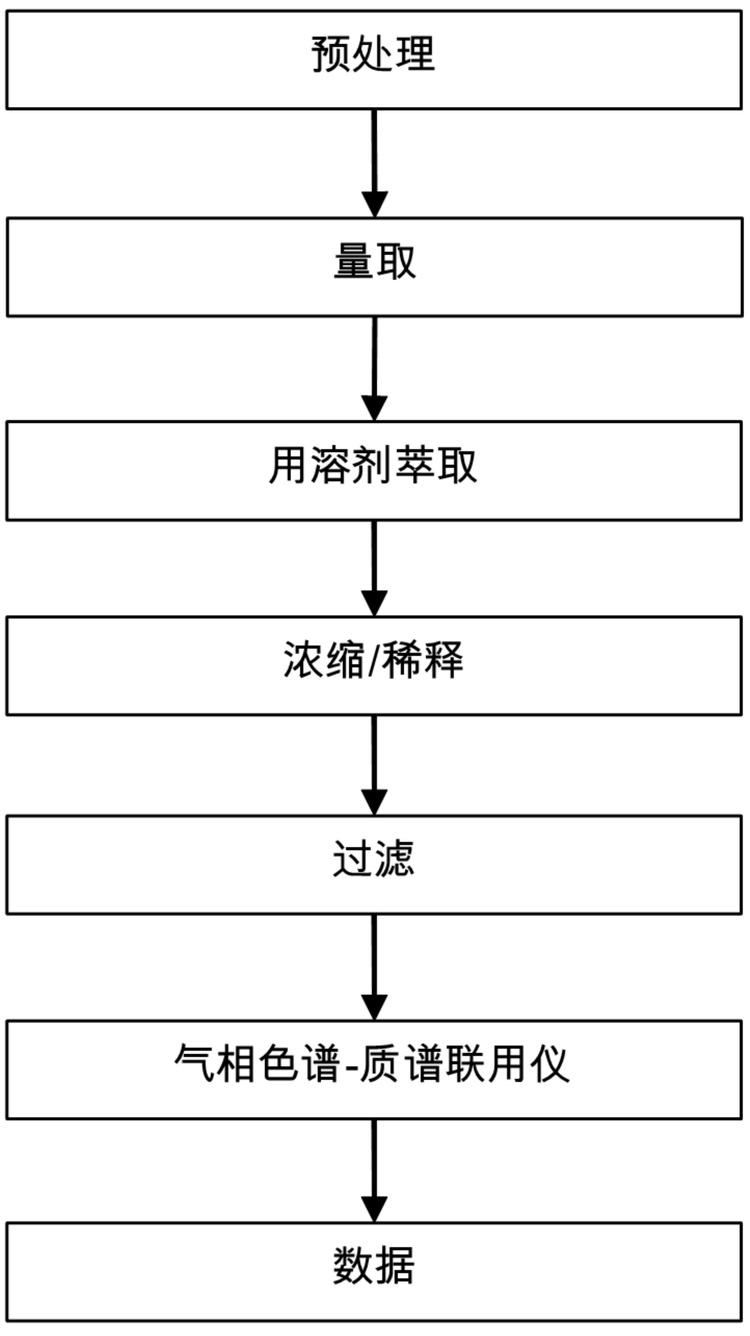
Phthalates 测试流程图



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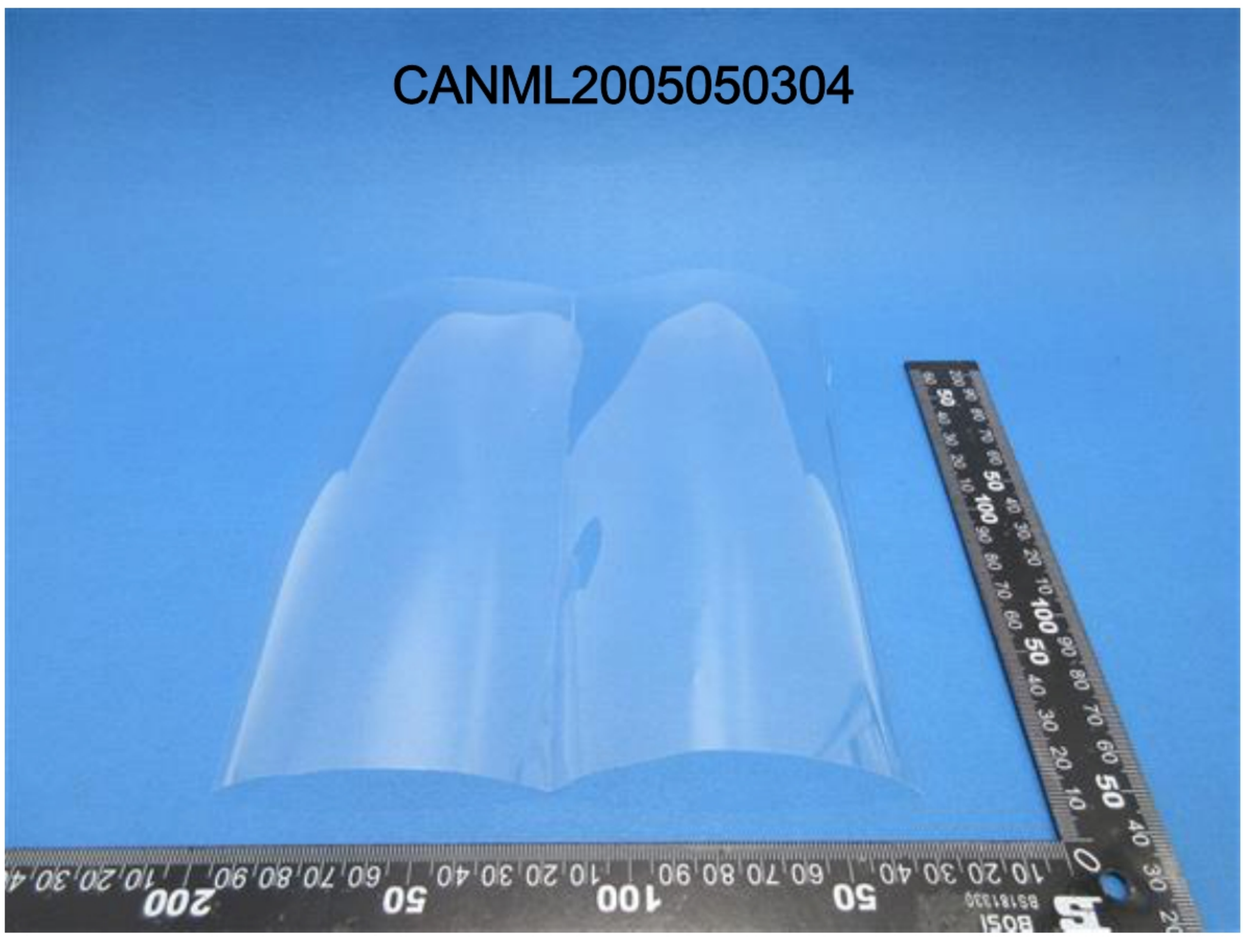

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No.: PL20040956-1

检 测 报 告

产品名称 高透防护面罩

委托单位 宝石（广州）印刷包装有限公司

检测类别 委托检测

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注 意 事 项

1、除委托信息栏、检测结果以外所送样品信息；

2、检测报告是“检测报告专用章”或检测单位公章无效；

3、复制报告未重新加盖“检测报告专用章”或检测单位公章无效；

4、报告无主检、审核、批准人签字无效；

5、报告涂改无效；

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检 验 报 告

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产品名称	高透防护面罩	产品型号	未提供	规格型号	EF-24
产品商标	宝石	数量/批号	未提供	样品状态	良好密封/完好
委托单位名称	宝石（广州）印刷包装有限公司			样品来源	工作人员
委托单位地址	广东省广州市番禺区沙湾镇东涌镇沙湾大道 17 号工业区				
生产地	未提供	样品数量	未提供	生产日期或批号	未提供
送样/生产	未提供				
样品到达日期	2020 年 04 月 23 日	样品数量	4 对	样品保存	合格
检测依据	请按所送样品检测内容 ASTM F2100-2019				
检测结论	请按所送样品检测内容 ASTM F2100-2019 Medical Face Shield 医用面罩 Specification 规格 Level 等级 1 级				
备注	检测产品型号信息以客户提供为准。				

检测地点: 检测人: 审核: 主检:

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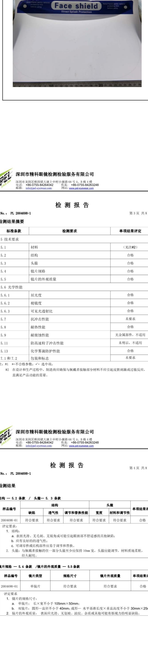
检测样品照片



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检测结果概要

检测条款	检测要求	检测结果	单项结论要求
1. 结构要求			
1.1	材料	见表 1	
1.2	结构	合格	
1.3	头盔	合格	
1.4	镜片倾斜	合格	
1.5	镜片固件或装置	合格	
1.6 生理要求			
1.6.1	视线宽	合格	
1.6.2	眼睛宽	合格	
1.6.3	可见光透射比	合格	
1.7	清洁与消毒	未要求	
1.8	耐热性能	合格	
1.9	耐腐蚀性能	无法测试的，不适用	
1.10	防高速粒子冲击性能	未测试，不适用	
1.11	化学物质防护性能	未要求	
1.12	包装和标志	未要求	
2. 附加要求			
2	不应对用户产生伤害，特别是对眼睛和面部皮肤有刺激性不应有任何有害物质或成分存在，且满足产品说明要求。		

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检测结果

结构 - 1.1 材料 / 头盔 - 1.3 头盔

样品编号	结构		头盔		单项结论要求
	镜框	遮光片	遮光带/面部密封	包覆	结构/面部密封
2004040-01	符合要求	符合要求	符合要求	符合要求	合格

评定要求：

1. 结构：
   a. 面部密封，头盔包覆，头盔包覆应可以保证面部不受碰撞伤害或刺伤。
   b. 镜片固件或装置
   c. 可拆卸的面部密封应易于安装和更换。
2. 头盔：与佩戴者接触的任一部分头部尺寸应为 55cm 至 62cm 的成人尺寸，同时可调范围，且不得松动。

镜片倾斜 - 1.4 镜片倾斜 / 镜片固件或装置 - 1.5 镜片

样品编号	镜片倾斜	镜片固件	单项结论要求
2004040-01	符合要求	符合要求	合格

评定要求：

1. 镜片倾斜应：
   a. 倾斜角：应大于等于 5° 小于等于 15mm×15mm。
   b. 镜片倾斜应：应大于等于 5° 小于等于 15mm×15mm。，由于面部尺寸，在面部尺寸不在适用范围内于 20mm×20mm。
2. 镜片固件要求：要求应可以，无松动，无脱落，无形成尖锐边缘或其他可能伤害面部。

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检测结果

遮光度 - 1.6.1 遮光

面罩结果（镜框）- 1.5 头盔

样品编号	测试位置	测试结果(F)			校准要求 (F)			单项结论要求
		最小值		最大值	最小值		最大值	
		实测	换算	实测	换算	实测	换算	
2004040-01	C	0.00	0.00		0.00	0.00		合格
	水平方向	0.00	0.00	0.00	0.00	0.00	0.00	
	垂直方向	0.00	0.00		0.00	0.00		

面罩结果（镜片）- 1.5 镜片

样品编号	测试位置	测试结果(F)			校准要求 (F)			单项结论要求
		最小值		最大值	最小值		最大值	
		实测	换算	实测	换算	实测	换算	
2004040-01	C	0.00	0.00		0.00	0.00		合格
	水平方向	0.00	0.00	0.00	0.00	0.00	0.00	
	垂直方向	0.00	0.00		0.00	0.00		

评定要求：

1. 镜片应满足下表 ASD-2-ST5。
2. 面罩应满足下表 ASD-2-ST5。

测量不确定度为 0.05。

备注：F/镜片 F/面罩 = 1 为合格，1 为不合格。

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检测结果

视线宽度 - 1.6.2 视线宽

面罩结果（镜框）- 1.5 头盔

样品编号	测试位置	测试结果(F)			校准要求 (F)			单项结论要求
		最小值		最大值	最小值		最大值	
		实测	换算	实测	换算	实测	换算	
2004040-01	水平方向	0.00	0.00	0.00	0.00	0.00	0.00	合格
		0.00	0.00		0.00	0.00		
	垂直方向	0.00	0.00	0.00	0.00	0.00	0.00	
		0.00	0.00		0.00	0.00		

面罩结果（镜片）- 1.5 镜片

样品编号	测试位置	测试结果(F)			校准要求 (F)			单项结论要求
		最小值		最大值	最小值		最大值	
		实测	换算	实测	换算	实测	换算	
2004040-01	水平方向	0.00	0.00	0.00	0.00	0.00	0.00	合格
		0.00	0.00		0.00	0.00		
	垂直方向	0.00	0.00	0.00	0.00	0.00	0.00	
		0.00	0.00		0.00	0.00		

评定要求：

1. 不管用哪个视线宽度应不得小于 15mm。
2. 面罩可能有小的几何形状会影响视线宽度，但不应在面罩的水平和垂直方向形成有效视线宽度小于 15mm。
3. 三个测量点的平均值应不得小于 15mm。

测量不确定度为 0.05。

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检 测 报 告

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检测结果

可见光透射比 - 1.6 可见光

面罩结果（镜片）- 1.5 镜片

样品编号	测量位置	可见光透射比 (%)		最大值	最小值	相对偏差	单项结果要求
		镜片中心点	镜片				
2004040-01	中心点	89.5	89.5	89.5	89.5	0.2	合格
	面罩结果测试						
	中心点	89.5	89.5	89.5	89.5	0.2	

评定要求：

1. 可见光透射比为 89%≤ 89%，相对偏差为 ≤3%
2. 面罩结果测试：面罩结果测试的中心点 89%。

测量不确定度为 0.05。

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检 测 报 告

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检测结果

化学物质防护性能 - 1.11 防腐

样品编号	试验结果要求		结论	单项结果要求
	出现时间	未出现时间		
2004040-01	合格		合格	合格

评定要求：

1. 出现时间未要求测试，未出现时间应大于 60min。

---报告结束---

Shenzhen CTO Technology Service Co.,Ltd
9 / F, Block B, 196 Tangtou Avenue, Langxin Community,
Shiyan Street, Baoan District, Shenzhen China.

CERTIFICATE OF CONFORMITY

Certificate No.	:	CTO200417057HCS
Applicant	:	BaoYuan packing（guangzhou）Co., ltd
Address	:	South Side of zhongchuang Road, zhongCun Town, Panyu District, Guangzhou City
Manufacturer	:	BaoYuan packing（guangzhou）Co., ltd
Address	:	South Side of zhongchuang Road, zhongCun Town, Panyu District, Guangzhou City
Product	:	Face Shield
Trade Name	:	N/A
Model(s)	:	BY-28, BY-27, BY-26
Test Report No.	:	CTO200417035SRS
Test Standards	:	**EN 1731:2006**

The EUT described above has been tested by us with the listed standards and found in compliance with the council **PPE Directive 2016/425**. It is possible to use **CE** marking to demonstrate the compliance with this PPE Directive.

CE

For Chief Executive / Zaccheo Lee
Date: Apr. 17, 2020

This certificate of conformity is based on a single evaluation of the submitted sample(s) of the above mentioned product. It does not imply an assessment of the whole production and other relevant directives have to be observed.

Web:www.cto-cert.com E-mail: service@cto-cert.com