

# Test Report

No.: GZHL1901004113CE-01

Date: Apr 08, 2019

Page 1 of 22

POWERSLIDE SPORTARTIKELVERTRIEBS GMBH  
ESBACHGRABEN 1, 95463 BINDLACH, GERMANY

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

Sample Description : POWERSLIDE ONE BASIC KIDS  
 Style / Item No. : HP-PS19  
 Range : A/B  
 Level : 1  
 Manufacturer : HYPRO INDUSTRIAL CO., LTD  
 Buyer : POWERSLIDE SPORTARTIKELVERTRIEBS GMBH  
 Country of Origin : CHINA  
 Country of Destination : EUROPE, US  
 Test Performed : EN 14120:2003+A1:2007,  
 Analysis of Azo Dye,  
 To Determine the pH Value,  
 Color Fastness to Perspiration  
 Sample Receiving Date : Jan 28, 2019  
 Test Performing Date : Jan 28, 2019 to Mar 11, 2019  
 Test Result(s) : For further details, please refer to the following page(s)

Signed for and on behalf of  
Guangzhou Branch  
SGS-CSTC Ltd.



Lell Wu  
Approved Signatory



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中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075191 e sgs.china@sgs.com

**I. Test Conducted:** Based on **EN 14120:2003+A1:2007** Protective clothing –Wrist, palm, knee and elbow protectors for user of roller sports equipment – requirements and test methods.

**Test Results:**

Clause	Test Method/Requirement	Result
<b>4</b>	<b>Performance levels</b>	
<b>4.1</b>	Level 1: Protectors intended to be suitable for normal roller sports.	---
<b>4.2</b>	Level 2: Protectors intended to be suitable for use in acrobatic roller sports.	
<b>5</b>	<b>Requirements</b>	
<b>5.1</b>	General performance requirements shall be based on 3 weight ranges as follows: a) range A : Users of up to 25 kg body weight ; b) range B : Users of body weight between 25 kg and 50 kg ; c) range C : Users of body weight above 50 kg. Combined protectors such as wrist protectors shall meet the requirements for each protector.	---
<b>5.2</b>	<b>Ergonomics</b> Protectors shall be so designed and manufactured that in the foreseeable conditions of use for which they are intended the user can perform the roller sports normally and unhindered whilst enjoying protection at the specified limit.	Pass
<b>5.3</b>	<b>Innocuousness</b> Protectors shall be safe to use and fit for their purpose. They shall be designed and manufactured to provide protection when used according to the manufacturer's instructions, without endangering the user or others.	Pass
	There shall not be hard or sharp edges, seams, buckles or other items on the surfaces of the products that could harm the user or others during normal use. Examination shall be made according to 6.3.	Pass
	Construction materials and incorporated substances shall not harm those coming into contact with them.	Pass
	The manufacturer shall list in the information supplied with the protectors the main composition of the protectors and shall label any protector containing substances or preparations generally known to be hazardous. Information about determining the chemical innocuousness of protectors is given in annex A.	Pass
<b>5.4</b>	<b>Sizing</b> Protectors shall be marked with a size. The size shall be designated by the range of body of the intended users, see 5.1.	NT



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<p><b>5.5</b></p>	<p><b>Restraint</b>                  Protectors shall not be easily displaced from the areas they are designed to protect during normal movements and when subjected to impacts. When subjected to impacts. When tested in accordance with 6.4 the central point of a protector shall not move more than the appropriate value in Table 1.</p> <p>Table 1: Maximum movement of protectors during testing.</p> <table border="1"> <thead> <tr> <th rowspan="2">Kind of protectors</th> <th colspan="3">Maximum movement (mm)</th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>Elbow protectors</td> <td>20</td> <td>40</td> <td>50</td> </tr> <tr> <td>Knee protectors</td> <td>30</td> <td>50</td> <td>60</td> </tr> <tr> <td>Wrist protectors</td> <td>20</td> <td>20</td> <td>20</td> </tr> <tr> <td>Palm protectors</td> <td>20</td> <td>20</td> <td>20</td> </tr> </tbody> </table>	Kind of protectors	Maximum movement (mm)			A	B	C	Elbow protectors	20	40	50	Knee protectors	30	50	60	Wrist protectors	20	20	20	Palm protectors	20	20	20	<p>Pass See annex 1</p>																	
Kind of protectors	Maximum movement (mm)																																									
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Knee protectors	30	50	60																																							
Wrist protectors	20	20	20																																							
Palm protectors	20	20	20																																							
<p><b>5.6</b></p>	<p><b>Abrasion resistance</b>                  When tested in accordance with 6.5 the abrasion resistant layer of the protector shall not be perforated.</p>	<p>Pass See annex 4</p>																																								
<p><b>5.7</b></p>	<p><b>Impact strength</b>                  When tested in accordance with 6.6 the abrasion resistant layer of the knee, elbow, wrist or palm protector shall not break or split.</p> <p style="text-align: right;">Unit: J</p> <table border="1"> <thead> <tr> <th rowspan="3">Kind of protectors</th> <th colspan="3">Level 1</th> <th colspan="3">Level 2</th> </tr> <tr> <th colspan="6">Range of body mass</th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>Knee protectors</td> <td>25±2</td> <td>45±2</td> <td>65±2</td> <td>30±2</td> <td>50±2</td> <td>70±2</td> </tr> <tr> <td>Elbow protectors</td> <td>20±2</td> <td>40±2</td> <td>60±2</td> <td>20±2</td> <td>40±2</td> <td>60±2</td> </tr> <tr> <td>Wrist and Palm protectors</td> <td>30±2</td> <td>40±2</td> <td>50±2</td> <td>30±2</td> <td>40±2</td> <td>50±2</td> </tr> </tbody> </table>	Kind of protectors	Level 1			Level 2			Range of body mass						A	B	C	A	B	C	Knee protectors	25±2	45±2	65±2	30±2	50±2	70±2	Elbow protectors	20±2	40±2	60±2	20±2	40±2	60±2	Wrist and Palm protectors	30±2	40±2	50±2	30±2	40±2	50±2	<p>Pass See annex 5</p>
Kind of protectors	Level 1			Level 2																																						
	Range of body mass																																									
	A	B	C	A	B	C																																				
Knee protectors	25±2	45±2	65±2	30±2	50±2	70±2																																				
Elbow protectors	20±2	40±2	60±2	20±2	40±2	60±2																																				
Wrist and Palm protectors	30±2	40±2	50±2	30±2	40±2	50±2																																				



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5.8	<b>Impact performance for knee, palm and elbow protectors</b>							Pass See annex 6	
	A protector complies with this standard if the mean value of the peak force does not exceed the value in Table 2 when tested in accordance with 6.7.								
	Kind of protector	Protectors level 1							Maximum peak force kN
		Range of body mass							
		A		B		C			
		r	e	r	e	r	e		
		mm	J	mm	J	mm	J		
	Knee protectors	25	3	35	8	50	12		6
	Elbow protectors	12.5	1	17.5	4	25	6		4
	Palm protectors	100	3	100	4	100	5		3
	Kind of protector	Protectors level 2							Maximum peak force kN
		Range of body mass							
		A		B		C			
		r	e	r	e	r	e		
mm		J	mm	J	mm	J			
Knee protectors	25	15	35	20	50	25	6		
Elbow protectors	12.5	7.5	17.5	10	25	15	4		
Palm protectors	100	6	100	8	100	10	3		
r is the radius of curvature of the anvil e is the impact energy									
5.9	<b>Specific requirements for wrist protectors</b>								
5.9.1	<b>Adjustment</b> The restraint system shall be continuously adjustable. Testing in accordance with 6.1						Pass		
5.9.2	<b>Stiffness</b> Wrist protectors shall be sufficiently stiff that when tested according to 6.8 the extension of the artificial wrist joint is between $\angle A > 35^\circ < A1$ and $55^\circ$ .  NOTE Extension of the wrist joint is the bending of the hand backwards from a position in a straight line with the forearm. Unit: N-m						Pass See annex 3		
		Range							
		A		B		C			
Moment of force		2		3		3			



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5.9.3	<b>Dimensions of stiffness elements</b>			Pass See annex 2	
	Wrist protectors shall have stiffening elements that exceed the dimensions in table 3. The reference point for measurements shall be the plane of the wrist of an appropriate size of subject, who has put on the protector. The position of the plane of the wrist of the subject shall be determined according to EN 1082-1				
	Unit: mm				
	Location of stiffness elements	Range of body mass			
	A	B	C		
	Length from the wrist up to the arm	30	40	50	
	Length from the wrist towards the finger tip	40	50	60	
	Width in the palmer region	15	20	25	
7	<b>Marking</b>				
	Protectors shall be durably and clearly marked with the following:			NT	
	a.	name of trademark of the manufacturer or his authorized representative within the European Union;		NT	
	b.	designation of the protector, commercial name of that uniquely identifies the protector;		NT	
	c.	size of the protector (see also 5.4)		NT	
	d.	name of this standard and the performance level;		NT	
	e.	clear indication whether the protector is for left or right fitting, if appropriate;		NT	
	f.	international care label symbols;		NT	
	g.	year of manufacture (date or code);		NT	
h.	the following pictogram, instructing the user to see the information supplied by the manufacture.		NT		



Information supplied by the manufacturer		
8	Protectors shall be supplied with information and instructions for fitting and use to promote their safe and effective use. The information shall be precise and comprehensible and in the official languages of the country or region in which the equipment is to be placed on the market. At least the following information and instructions shall be given:	NT
	a. all the information specified in clause 7;	NT
	b. full address of the manufacturer or importer	NT
	c. instructions on how to select protectors of the correct performance level and explanation of the performance level of the protectors specified in this standard;	NT
	d. instructions on how to choose the correct size of protector and check its fit;	NT
	e. details of the size of protectors and the body dimensions to which they relate;	NT
	f. instructions on how to adjust the protectors;	NT
	g. warning about any changes in environmental conditions, such as temperature, that would significantly reduce the performance of the protector;	NT
	h. warning that no protector can offer full protection against injuries;	NT
	i. warning about any contamination, alteration to the protector, or misuse that would dangerously reduce the performance of the protector;	NT
	j. list of the substances in the main components of the protector;	NT
	k. instructions for caring for and cleaning the protector;	NT
	l. instructions concerning the expected service life of the protector, inspections to carry out, repairs that may be made, and advice on when discard the protector because it might no longer perform adequately.	NT



Model: HP-PS19

Range: A

Level: 1

Size: XXS

**Annex 1: Restraint test result**

Test Specification: EN 14120:2003+A1:2007-6.4

Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Movement for upwards (mm)	Movement for downwards (mm)	Maximum movement requirement (mm)	Result
Knee	6	10	21	Range A: 30mm Range B: 50mm Range C: 60mm	Pass
		12	18		
		12	19		
Elbow	6	10	15	Range A: 20mm Range B: 40mm Range C: 50mm	Pass
		8	16		
		10	15		
Palm & Wrist	6	6	7	Range A: 20mm Range B: 20mm Range C: 20mm	Pass
		6	5		
		8	6		

**Annex 2: Dimensions of stiffness elements test result**

Test Specification: EN 14120:2003+A1:2007-5.9.3

Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Location of stiffness elements	Dimensions (mm)	Result
Wrist protector	7	Length from the wrist up to the arm	70.1	Pass
		Length from the wrist towards the finger tip	45.5	
		Width in the palmer region	38.0	

**Annex 3: Stiffness test result**

Test Specification: EN 14120:2003+A1:2007-5.9.3

Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Degree of angle (°)	Result
Wrist protector	7	39°	Pass



### Annex 4: Abrasion resistance test result

Test Specification: EN 14120:2003+A1:2007-6.5.2

Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Test result description	Result
Knee protector	6	Not Perforated	Pass
	7	Not Perforated	
Elbow protector	6	Not Perforated	Pass
	7	Not Perforated	
Palm protector	6	Not Perforated	Pass
	7	Not Perforated	

### Annex 5: Impact strength test result

Test Specification: EN 14120:2003+A1:2007-6.6

Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Test result description	Result
Knee	4	Not break or split	Pass
	5	Not break or split	
Elbow	4	Not break or split	Pass
	5	Not break or split	
Palm and wrist	4	Not break or split	Pass
	5	Not break or split	

### Annex 6: Impact performance test result

Test Specification: EN 14120:2003+A1:2007-6.7

Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Impact site	Peak force (kN)	Average (kN)	Requirement	Result
					Max. peak force (kN)	
Knee protector	1	1	1.10	1.37	6	Pass
		2	1.28			
		3	1.39			
	2	4	1.58			
		5	1.21			
		6	1.67			
Elbow protector	1	1	0.74	0.97	4	Pass
		2	1.04			
		3	1.10			
	2	4	0.97			
		5	0.82			
		6	1.13			
Palm protector	1	1	0.68	0.70	3	Pass
		2	0.77			
	2	3	0.47			
		4	0.71			



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3	5	0.75
	6	0.80

Model: HP-PS19

Range: B

Level: 1

Size: XS

### Annex 1: Restraint test result

Test Specification: EN 14120:2003+A1:2007-6.4

Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Movement for upwards (mm)	Movement for downwards (mm)	Maximum movement requirement (mm)	Result
Knee	6	20	25	Range A: 30mm Range B: 50mm Range C: 60mm	Pass
		21	26		
		20	28		
Elbow	6	18	22	Range A: 20mm Range B: 40mm Range C: 50mm	Pass
		19	21		
		18	23		
Palm & Wrist	6	8	8	Range A: 20mm Range B: 20mm Range C: 20mm	Pass
		6	7		
		7	8		

### Annex 2: Dimensions of stiffness elements test result

Test Specification: EN 14120:2003+A1:2007-5.9.3

Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Location of stiffness elements	Dimensions (mm)	Result
Wrist protector	7	Length from the wrist up to the arm	85.6	Pass
		Length from the wrist towards the finger tip	55.0	
		Width in the palmer region	38.2	

### Annex 3: Stiffness test result

Test Specification: EN 14120:2003+A1:2007-5.9.3

Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Degree of angle (°)	Result
Wrist protector	7	40°	Pass



### Annex 4: Abrasion resistance test result

Test Specification: EN 14120:2003+A1:2007-6.5.2

Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Test result description	Result
Knee protector	6	Not Perforated	Pass
	7	Not Perforated	
Elbow protector	6	Not Perforated	Pass
	7	Not Perforated	
Palm protector	6	Not Perforated	Pass
	7	Not Perforated	

### Annex 5: Impact strength test result

Test Specification: EN 14120:2003+A1:2007-6.6

Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Test result description	Result
Knee	4	Not break or split	Pass
	5	Not break or split	
Elbow	4	Not break or split	Pass
	5	Not break or split	
Palm and wrist	4	Not break or split	Pass
	5	Not break or split	

### Annex 6: Impact performance test result

Test Specification: EN 14120:2003+A1:2007-6.7

Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Impact site	Peak force (kN)	Average (kN)	Requirement	Result
					Max. peak force (kN)	
Knee protector	1	1	2.85	5.26	6	Pass
		2	7.79			
		3	5.15			
	2	4	8.65			
		5	3.14			
		6	3.97			
Elbow protector	1	1	1.19	3.20	4	Pass
		2	2.78			
		3	3.82			
	2	4	4.68			
		5	2.75			
		6	2.93			
Palm protector	1	1	1.08	1.66	3	Pass
		2	1.72			
	2	3	1.50			
		4	2.01			



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3	5	1.43
	6	2.22

Model: HP-PS19

Range: B

Level: 1

Size: S

### Annex 1: Restraint test result

Test Specification: EN 14120:2003+A1:2007-6.4

Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Movement for upwards (mm)	Movement for downwards (mm)	Maximum movement requirement (mm)	Result
Knee	6	24	28	Range A: 30mm Range B: 50mm Range C: 60mm	Pass
		25	29		
		26	28		
Elbow	6	18	24	Range A: 20mm Range B: 40mm Range C: 50mm	Pass
		16	25		
		17	20		
Palm & Wrist	6	8	10	Range A: 20mm Range B: 20mm Range C: 20mm	Pass
		9	8		
		8	8		

### Annex 2: Dimensions of stiffness elements test result

Test Specification: EN 14120:2003+A1:2007-5.9.3

Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Location of stiffness elements	Dimensions (mm)	Result
Wrist protector	7	Length from the wrist up to the arm	85.3	Pass
		Length from the wrist towards the finger tip	53.1	
		Width in the palmer region	38.7	

### Annex 3: Stiffness test result

Test Specification: EN 14120:2003+A1:2007-5.9.3

Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Degree of angle (°)	Result
Wrist protector	7	42°	Pass



### Annex 4: Abrasion resistance test result

Test Specification: EN 14120:2003+A1:2007-6.5.2

Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Test result description	Result
Knee protector	6	Not Perforated	Pass
	7	Not Perforated	
Elbow protector	6	Not Perforated	Pass
	7	Not Perforated	
Palm protector	6	Not Perforated	Pass
	7	Not Perforated	

### Annex 5: Impact strength test result

Test Specification: EN 14120:2003+A1:2007-6.6

Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Test result description	Result
Knee	4	Not break or split	Pass
	5	Not break or split	
Elbow	4	Not break or split	Pass
	5	Not break or split	
Palm and wrist	4	Not break or split	Pass
	5	Not break or split	

### Annex 6: Impact performance test result

Test Specification: EN 14120:2003+A1:2007-6.7

Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Impact site	Peak force (kN)	Average (kN)	Requirement	Result	
					Max. peak force (kN)		
Knee protector	1	1	2.10	5.58	6	Pass	
		2	9.48				
		3	6.58				
	2	4	8.65				
		3	5				2.37
			6				4.29
Elbow protector	1	1	1.89	3.69	4	Pass	
		2	4.77				
		3	3.56				
	2	4	4.79				
		3	5				3.94
			6				3.17
Palm protector	1	1	1.19	1.72	3	Pass	
		2	1.66				
	2	3	1.62				
		4	1.90				



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	3	5	1.33			
		6	2.61			

### II. Analysis of AZO Dye and to Determine the PH Value in the submitted sample.

SGS Ref No.: CAN19-030834

Test Requested	Result
To determine the pH Value in the submitted sample(s).	See Results
To determine the Azo Dyes content(s) in the submitted sample(s).	See Results

Test Results :

#### Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	CAN19-030834.001	Black elastic sheet
SN2	CAN19-030834.002	Black elastic strap
SN3	CAN19-030834.003	Black mesh sheet

Remarks :

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected ( < MDL )
- (4) "-" = Not Regulated

#### pH value

Test Method : With reference to ISO 3071:2005, analysis was performed by pH meter.

Test Item(s)	001	002	003
pH value	6.5	6.3	6.5

Notes :

- (1)Extraction medium: KCl solution
- (2)pH value of extraction medium: 5.0 - 7.5



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(3)Temperature of the extraction solution: 22±2°C

### Azo Dyes

Test Method : With reference to ISO14362-1:2017, analysis was conducted with GC-MS/HPLC-DAD.

Test Item(s)	CAS NO.	Unit	MDL	001	
				Method A	Method B
4-Aminobiphenyl	92-67-1	mg/kg	5	ND	ND
Benzidine	92-87-5	mg/kg	5	ND	ND
4-chloro-o-toluidine	95-69-2	mg/kg	5	ND	ND
2-naphthylamine	91-59-8	mg/kg	5	ND	ND
o-aminoazotoluene	97-56-3	mg/kg	5	ND	ND
5-nitro-o-toluidine / 2-Amino-4-nitrotoluene	99-55-8	mg/kg	5	ND	ND
4-chloroaniline	106-47-8	mg/kg	5	ND	ND
4-methoxy-m-phenylenediamine / 2,4-Diaminoanisole	615-05-4	mg/kg	5	ND	ND
4,4'-diaminodiphenylmethane	101-77-9	mg/kg	5	ND	ND
3,3'-dichlorobenzidine	91-94-1	mg/kg	5	ND	ND
3,3'-dimethoxybenzidine	119-90-4	mg/kg	5	ND	ND
3,3'-dimethylbenzidine	119-93-7	mg/kg	5	ND	ND
4,4'-methylenedi-o-toluidine/3,3'- Dimethyl-4,4'-diaminodiphenylm ethane	838-88-0	mg/kg	5	ND	ND
p-cresidine	120-71-8	mg/kg	5	ND	ND
4,4'-methylene-bis- (2-chloroaniline)	101-14-4	mg/kg	5	ND	ND
4,4'-oxydianiline	101-80-4	mg/kg	5	ND	ND
4,4'-thiodianiline	139-65-1	mg/kg	5	ND	ND
o-toluidine	95-53-4	mg/kg	5	ND	ND
4-methyl-m-phenylenediamine / 2,4-Toluyldiamine	95-80-7	mg/kg	5	ND	ND
2,4,5-trimethylaniline	137-17-7	mg/kg	5	ND	ND
4-aminoazobenzene	60-09-3	mg/kg	5	ND	ND
O-Anisidine	90-04-0	mg/kg	5	ND	ND
2,4-Xylidine	95-68-1	mg/kg	5	ND	ND
2,6-Xylidine	87-62-7	mg/kg	5	ND	ND

Test Item(s)	CAS NO.	Unit	MDL	002	
				Method A	Method B
4-Aminobiphenyl	92-67-1	mg/kg	5	ND	ND



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Benzidine	92-87-5	mg/kg	5	ND	ND
4-chloro-o-toluidine	95-69-2	mg/kg	5	ND	ND
2-naphthylamine	91-59-8	mg/kg	5	ND	ND
o-aminoazotoluene	97-56-3	mg/kg	5	ND	ND
5-nitro-o-toluidine / 2-Amino-4-nitrotoluene	99-55-8	mg/kg	5	ND	ND
4-chloroaniline	106-47-8	mg/kg	5	ND	ND
4-methoxy-m-phenylenediamine / 2,4-Diaminoanisole	615-05-4	mg/kg	5	ND	ND
4,4'-diaminodiphenylmethane	101-77-9	mg/kg	5	ND	ND
3,3'-dichlorobenzidine	91-94-1	mg/kg	5	ND	ND
3,3'-dimethoxybenzidine	119-90-4	mg/kg	5	ND	ND
3,3'-dimethylbenzidine	119-93-7	mg/kg	5	ND	ND
4,4'-methylenedi-o-toluidine/3,3'- Dimethyl-4,4'-diaminodiphenylm ethane	838-88-0	mg/kg	5	ND	ND
p-cresidine	120-71-8	mg/kg	5	ND	ND
4,4'-methylene-bis- (2-chloroaniline)	101-14-4	mg/kg	5	ND	ND
4,4'-oxydianiline	101-80-4	mg/kg	5	ND	ND
4,4'-thiodianiline	139-65-1	mg/kg	5	ND	ND
o-toluidine	95-53-4	mg/kg	5	ND	ND
4-methyl-m-phenylenediamine / 2,4-Toluyldiamine	95-80-7	mg/kg	5	ND	ND
2,4,5-trimethylaniline	137-17-7	mg/kg	5	ND	ND
4-aminoazobenzene	60-09-3	mg/kg	5	ND	ND
O-Anisidine	90-04-0	mg/kg	5	ND	ND
2,4-Xylydine	95-68-1	mg/kg	5	ND	ND
2,6-Xylydine	87-62-7	mg/kg	5	ND	ND

Test Item(s)	CAS NO.	Unit	MDL	003	
				Method A	Method B
4-Aminobiphenyl	92-67-1	mg/kg	5	ND	ND
Benzidine	92-87-5	mg/kg	5	ND	ND
4-chloro-o-toluidine	95-69-2	mg/kg	5	ND	ND
2-naphthylamine	91-59-8	mg/kg	5	ND	ND
o-aminoazotoluene	97-56-3	mg/kg	5	ND	ND
5-nitro-o-toluidine / 2-Amino-4-nitrotoluene	99-55-8	mg/kg	5	ND	ND
4-chloroaniline	106-47-8	mg/kg	5	ND	ND
4-methoxy-m-phenylenediamine / 2,4-Diaminoanisole	615-05-4	mg/kg	5	ND	ND
4,4'-diaminodiphenylmethane	101-77-9	mg/kg	5	ND	ND
3,3'-dichlorobenzidine	91-94-1	mg/kg	5	ND	ND
3,3'-dimethoxybenzidine	119-90-4	mg/kg	5	ND	ND



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3,3'-dimethylbenzidine	119-93-7	mg/kg	5	ND	ND
4,4'-methylenedi-o-toluidine/3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	mg/kg	5	ND	ND
p-cresidine	120-71-8	mg/kg	5	ND	ND
4,4'-methylene-bis-(2-chloroaniline)	101-14-4	mg/kg	5	ND	ND
4,4'-oxydianiline	101-80-4	mg/kg	5	ND	ND
4,4'-thiodianiline	139-65-1	mg/kg	5	ND	ND
o-toluidine	95-53-4	mg/kg	5	ND	ND
4-methyl-m-phenylenediamine / 2,4-Toluyldiamine	95-80-7	mg/kg	5	ND	ND
2,4,5-trimethylaniline	137-17-7	mg/kg	5	ND	ND
4-aminoazobenzene	60-09-3	mg/kg	5	ND	ND
O-Anisidine	90-04-0	mg/kg	5	ND	ND
2,4-Xylidine	95-68-1	mg/kg	5	ND	ND
2,6-Xylidine	87-62-7	mg/kg	5	ND	ND

Notes:

- (1) Method A is direct reduction, direct reduction refers to the extraction and reduction according to ISO 14362-1:2017 clause 10.2 and relevant clauses. Method B is colorant extraction, colorant extraction refers to the colourant extraction and subsequent reduction according to ISO 14362-1:2017 clause 10.1 and relevant clauses.
- (2) Whenever 4-aminodiphenyl (CAS number 92-67-1), 2-naphylamine (CAS number 91-59-8) and 4-methoxy-m-phenylene-diamine (CAS number 615-05-4) is found, the use of banned azo colorants cannot be reliably ascertained without additional information, e.g. the chemical structure of the colorants used.
- (3) In case polyurethane materials are used, e.g. PU foams and coatings and in prints, it cannot be ruled out that certain amines, e.g. 4,4'-methylene-dianiline (MDA, CAS number 101-77-9) and 2,4-toluylen-diamine (TDA, CAS number 95-80-7) are released from the PU component and not from a banned azo colorant.
- (4) In case of pigment prints care has to be taken that 4,4'-methylene-dianiline (MDA, CAS number 101-77-9) is not released from a source of banned azo colorants but from e.g. a chemical fixing agent.



Sample photo:



Product Photo



Product Photo





Product Photo

### III. Colour Fastness to Perspiration.

SGS Ref. No.: SL91939220766001TX

Three sample of fabric marked as (A)black fabric, (B)black strap (C)black mesh

#### Test Result

#### Colour Fastness To Perspiration

(ISO 105-E04:2013;test specimen in vertical position)

#### Acid

	Unit	(A)	(B)	(C)	Requirement
-					
Change In Shade	-	4-5	4-5	4-5	-
Staining On Multi-fibre Stripe					
Acetate	-	4-5	4-5	4-5	-
Cotton	-	4-5	4-5	4-5	-
Nylon	-	4-5	4-5	4-5	-
Polyester	-	4-5	4-5	4-5	-
Acrylic	-	4-5	4-5	4-5	-
Wool	-	4-5	4-5	4-5	-



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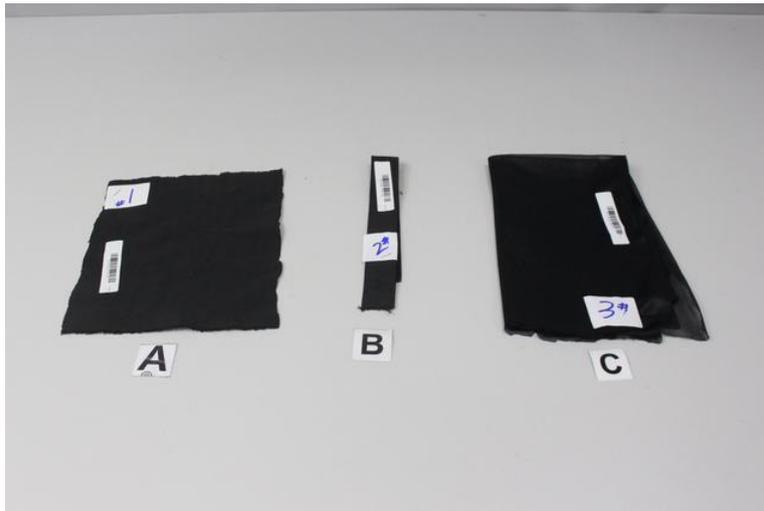
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Alkaline

	Unit	(A)	(B)	(C)	Requirement
-					
Change In Shade	-	4-5	4-5	4-5	-
Staining On Multi-fibre Stripe					
Acetate	-	4-5	4-5	4-5	-
Cotton	-	4-5	4-5	4-5	-
Nylon	-	4-5	4-5	4-5	-
Polyester	-	4-5	4-5	4-5	-
Acrylic	-	4-5	4-5	4-5	-
Wool	-	4-5	4-5	4-5	-

Remark: Grey Scale Rating is based on the 5-step scale of 1 to 5, where 1 is worst and 5 is best.

### Sample Photo



**Remark:**

1. Pass means the test sample met the requirement of the test item.
2. NA means not applicable.  
NT means not tested as per client's request.
3. A material list for each part of the product and a statement to announce the material complying with requirements of the standard are received from the manufacturer
4. This test report is to supersede No. GZHL1901004113CE test report which was issued on Mar 13, 2019. And the original test reports (paper and electronic) are invalid.



Sample Photo(s):



<p>Test area &amp; Test sites</p>	
<p>Test area &amp; Test sites</p>	



Test area & Test sites



\*\*\*End of Report\*\*\*



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