Test Report

POWERSLIDE SPORTARTIKELVERTRIEBS GMBH
ESBACHGRABEN 1, 95463 BINDLACH, GERMANY

Sample Description	: ENNUI SHOCK SLEEVE KNEE GASKET, ENNUI SHOCK SLEEVE ELBOW GASKET
Item No.	: HP-S979
Buyer	: POWERSLIDE SPORTARTIKELVERTRIEBS GMBH
Manufacturer	: HYPRO INDUSTRIAL CO., LTD
Country of Origin	: CHINA
Country of Destination	: EU, US

As above test item and its relevant information regarding to the submission are provided and confirmed by the applicant. SGS is not liable to either the test item or its relevant information, in terms of the accuracy, suitability, reliability or/and integrity accordingly.

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Class	: B
Size	: XXS/XS, S/M, L/XL
Sample Receiving Date	: Jul 05, 2021
Test Performing Date	: Jul 05, 2021 to Aug 03, 2021
Test Performed	: BS EN 15613:2008, Analysis of Azo Dye, To Determine the pH Value, Color Fastness to Perspiration
Test Result(s)	: For further details, please refer to the following page(s)

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

scan to see the report

GZHL2107027399HM

Lell Wu
Authorized Signatory

198 Kezhu Road,Scientech Park Guangzhou Economic & Technology Development District,Guangzhou,China 510663 t (86-20) 82155555 f (86-20) 82075191 www.sgsgroup.com.cn
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 **BS EN 15613:2008** Knee and elbow protectors for indoor sports — Safety requirements and test methods.

Test Results:

Clause	Test Method/Requirement	Result
5	**Safety requirements**	---
5.1	**General**	**---**
5.1.1	Knee and elbow protectors shall be so designed that in the foreseeable conditions of use for which they are intended the user can perform the typical movements without being hindered. See test method in 6.3.	Pass
5.1.2	Knee and elbow protectors shall be free of sharp edges, corners and burrs that might injure the user. See test method in 6.4.	Pass
5.2	**Innocuousness** Construction materials or their derivates shall not harm those coming into contact with them. The manufacturer shall list in the information supplied by the manufacturer the substances used for the main components of the product. ***NOTE*** Information on the identification and classification of such substances can be found in the Directive 67/548/EEC (classification, packaging and labelling of dangerous substances) [1] as well as in the Regulation (EC) no.1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)[2].	Pass
5.3	**Sizing** Knee and elbow protectors shall be indicated with a size according to the principles described in Clause 6 of EN 340:2003. See test method in 6.1.	NT
5.4	**Adjusting/restraint systems**	---
5.4.1	If knee and elbow protectors have parts which can be adjusted by the user or which can be removed for the purpose of change they shall be so designed that they can be easily adjusted, assembled and removed without a tool. The width of the straps shall be at least 40 mm. Restraint devices shall be so designed that they do not constrict limbs, e.g. by rolling straps. See test method in 6.1.	NA
5.4.2*	Knee and elbow protectors shall remain in the areas they are designed to protect during all typical movements or during an impact. When tested according to 6.5, the movement of the central point of a protector shall not be greater than specified in Table 1. **Table 1 — Maximum movements of knee and elbow protectors** Protector / Maximum movement: Class A mm / Class B mm Elbow protector: 40 / 50 Knee protector: 50 / 60	Pass See annex 1

<table>
<tr><td>5.5</td><td>Impact performance
When tested according to 6.6, all test results shall not exceed the values specified in Table 2.
Table 2 — Impact performance requirements of knee and elbow protectors
<table>
<tr><th rowspan="2">Protector</th><th colspan="2">Class A</th><th colspan="2">Class B</th><th>Max. peak force</th></tr>
<tr><th>r
mm</th><th>E
J</th><th>R
Mm</th><th>E
J</th><th>kN</th></tr>
<tr><td>Elbow protector</td><td>12,5</td><td>1</td><td>17,5</td><td>1,5</td><td>4</td></tr>
<tr><td>Knee protector</td><td>25,0</td><td>2,5</td><td>35,0</td><td>4</td><td>6</td></tr>
<tr><td colspan="6">r is the radius of curvature of the anvil
E is the impact energy</td></tr>
</table>
See test method in 6.6.</td><td>Pass
See annex 2</td></tr>
<tr><td rowspan="11">7</td><td>Marking</td><td>---</td></tr>
<tr><td>Knee and elbow protectors shall be durably and clearly marked with the following information:</td><td>NT</td></tr>
<tr><td>a. Complete address of the manufacturer and/or his authorized representative established in the community;</td><td>NT</td></tr>
<tr><td>b. Designation of the protector, commercial name or code that uniquely identifies the protector;</td><td>NT</td></tr>
<tr><td>c. Size of the protector (body mass class and size);</td><td>NT</td></tr>
<tr><td>d. Information about the class according to Clause 4;</td><td>NT</td></tr>
<tr><td>e. Clear indication whether the protector is for left or right fitting, if appropriate;</td><td>NT</td></tr>
<tr><td>f. International care label;</td><td>NT</td></tr>
<tr><td>g. Year of manufacture (date or code);</td><td>NT</td></tr>
<tr><td>h. The expiry date if ageing significantly reduces the performance of the protector;</td><td>NT</td></tr>
<tr><td>i. Following pictogram according to ISO 7000:2004 - 1641, instructing the user to see the information supplied by the manufacturer.
  </td><td>NT</td></tr>
</table>

8	**Information supplied by the manufacturer**	---
	Knee and elbow protectors shall be provided with precise information in the official language(s) of the country or regions in which the product is to be placed on the market. At least the following information shall be given:	NT
	a. All the information specified in Clause 7;	NT
	b. Complete address of the manufacturer and/or his authorized representative established in the community;	NT
	c. Instructions on how to select protectors of the correct performance level and an explanation of the performance levels;	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. Warning that the protector shall be inspected carefully before use. Signs of damage or weakness might reduce the performance of the protector;	NT
	k. List of the substances in the main components of the protectors;	NT
	l. Instructions for caring for a cleaning of the protector;	NT
	m. Instructions concerning the expected service life of the protector, inspections to carry out, repairs that may be made, and advise on when discard the protector because it might not longer perform adequately;	NT
	n. Type of use for which the protector is intended;	NT
	o. Type of use for which the protector is not intended;	NT
	p. Hazards specific to the sport against which some protection is given;	NT
	q. Hazards specific to the sport against which protection is not given.	NT

Model: HP-S979 **Class: B** **Impactor: 40*40 mm** **Size: XXS/XS**

Annex 1: Restraint test result
Test Specification: BS EN 15613:2008-6.5
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 protector	3	8	10	Class A: 50mm Class B: 60mm	Pass
		10	11		
		13	14		
Elbow protector	3	9	10	Class A: 40mm Class B: 50mm	Pass
		12	11		
		14	15		

Annex 2: Impact performance test result
Test Specification: BS EN 15613:2008-6.6
Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Impact site	Impact energy (J)	Peak force (kN)	Requirement	Result
					Max. peak force (kN)	
Knee protector	1	1	4	1.42	6	Pass
		2	4	1.22		
	2	3	4	1.19		
		4	4	1.72		
Elbow protector	1	1	1.5	0.68	4	Pass
		2	1.5	0.95		
	2	3	1.5	0.71		
		4	1.5	0.71		

Model: HP-S979 **Class: B** **Impactor: 40*40 mm** **Size:S/M**

Annex 1: Restraint test result

Test Specification: BS EN 15613:2008-6.5

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 protector	3	12	13	Class A: 50mm Class B: 60mm	Pass
		14	16		
		18	19		
Elbow protector	3	10	12	Class A: 40mm Class B: 50mm	Pass
		12	13		
		15	16		

Annex 2: Impact performance test result

Test Specification: BS EN 15613:2008-6.6

Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Impact site	Impact energy (J)	Peak force (kN)	Requirement	Result
					Max. peak force (kN)	
Knee protector	1	1	4	1.42	6	Pass
		2	4	1.44		
	2	3	4	1.42		
		4	4	1.19		
Elbow protector	1	1	1.5	0.74	4	Pass
		2	1.5	0.95		
	2	3	1.5	0.71		
		4	1.5	0.95		

Model: HP-S979 **Class: B** **Impactor: 40*40 mm** **Size: L/XL**

Annex 1: Restraint test result

Test Specification: BS EN 15613:2008-6.5

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 protector	3	15	17	Class A: 50mm Class B: 60mm	Pass
		16	19		
		19	21		
Elbow protector	3	13	15	Class A: 40mm Class B: 50mm	Pass
		15	17		
		18	22		

Annex 2: Impact performance test result

Test Specification: BS EN 15613:2008-6.6

Ambient temperature at time of test: 22.2 °C

Style	Sample No.	Impact site	Impact energy (J)	Peak force (kN)	Requirement	Result
					Max. peak force (kN)	
Knee protector	1	1	4	1.42	6	Pass
		2	4	1.27		
	2	3	4	1.42		
		4	4	1.42		
Elbow protector	1	1	1.5	0.47	4	Pass
		2	1.5	0.71		
	2	3	1.5	0.71		
		4	1.5	0.86		

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

SGS Ref No.: CAN21-137302

Test Requested	Result
pH Value	See Results
Entry 43 of Commission Regulation (EU) 2020/2096 amending Annex XVII of REACH Regulation (EC) No 1907/2006 - Azodyes	See Results

Test Results :

Test Part Description :

SGS Sample ID	Description
CAN21-137302.001	Black/white elastic band
CAN21-137302.002	Black mesh sheet(big mesh style)
CAN21-137302.003	Orange foam
CAN21-137302.004	Gray foam
CAN21-137302.005	Black elastic band with transparent soft plastic surface
CAN21-137302.006	Black mesh sheet(small mesh style)
CAN21-137302.007	Black fabric
CAN21-137302.008	Black thread
CAN21-137302.009	Black/white elastic fabric

Remarks :

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

pH value

Test Method : With reference to ISO 3071:2020, analysis was performed by pH meter.

Test Item(s)	Unit	MDL	*001*	*002*	*003*
pH value	-	-	6.5	6.2	6.9

Test Item(s)	Unit	MDL	004	005	006
pH value	-	-	6.8	6.7	6.6

Test Item(s)	Unit	MDL	007	008	009
pH value	-	-	6.5	6.3	6.0

Notes :

(1)Extraction medium: KCl solution
(2)pH value of extraction medium: 5.0 - 7.5
(3)Temperature of the extraction solution: 22±2°C

Entry 43 of Commission Regulation (EU) 2020/2096 amending Annex XVII of REACH Regulation (EC) No 1907/2006 - Azodyes

Test Method : With reference to EN ISO14362-1:2017, analysis was conducted with GC-MS/HPLC-DAD. Determination of 4-aminoazobenzene (CAS No.:60-09-3): with reference to EN ISO14362-3:2017, 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, MDA	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'-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-Toluylendiamine, TDA	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
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, MDA	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'-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-Toluylendiamine, TDA	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	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, MDA	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'-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-Toluylendiamine, TDA	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	004	
				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, MDA	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'-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-Toluylendiamine, TDA	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	005	
				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, MDA	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'-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-Toluylendiamine, TDA	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	*006*	
				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, MDA	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'-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-Toluylendiamine, TDA	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	*007*	
				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, MDA	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'-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-Toluylendiamine, TDA	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	*008*	
				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, MDA	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'-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-Toluylendiamine, TDA	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	009	
				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, MDA	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'-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-Toluylendiamine, TDA	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) Direct reduction (Method A) refers to the extraction and reduction according to EN ISO 14362-1:2017 clause 10.2 and relevant clauses. Colorant extraction (Method B) refers to the colourant extraction and subsequent reduction according to EN ISO 14362-1:2017 Clause 10.1 and relevant clauses.
(2) 4-Aminodiphenyl (CAS No. 92-67-1), 2-Naphthylamine (CAS No. 91-59-8) and 2,4-Diaminoanisole (CAS No. 615-05-4) can be indirectly generated from some colorants which do not contain these amines azo bound. The use of banned azo colorants cannot be reliably ascertained without additional information.
(3) In case PU is used, e.g. PU Foams or coatings, it cannot be ruled out that MDA (CAS No. 101-77-9) and TDA (CAS No. 95-80-7) can be released from PU material, not from banned azo colorant. Similarly, for pigment prints, MDA will be released from a chemical fixing agent.
(4) EN ISO 14362-1:2017 will enable further cleavage of 4-AAB (CAS No. 60-09-3) to non-forbidden amines: aniline and p-phenylenediamine. If aniline and/or p-phenylenediamine is not found, 4-AAB is considered as “ND” (i.e. <5.0 mg/kg). Otherwise, EN ISO 14362-3:2017 will be employed to verify the presence of 4-AAB.

Remark: Method(s) in 003& 004 is/are not accredited by CNAS.

Sample photo:

Product Photo

Product Photo

Product Photo

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III. Colour Fastness to Perspiration.

SGS Ref. No.: SL92109288969101TX

Test Result

Colour Fastness To Perspiration

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

Acid

-	Unit	A	B	C	Requirement
Change in Shade	Grade	4-5	4-5	4-5	-
Staining On Multi-fibre Stripe					-
Acetate	Grade	4-5	4-5	4-5	-
Cotton	Grade	4-5	4-5	4-5	-
Polyamide	Grade	4-5	4-5	4-5	-
Polyester	Grade	4-5	4-5	4-5	-
Acrylic	Grade	4-5	4-5	4-5	-
Wool	Grade	4-5	4-5	4-5	-
-	Unit	D	E	F	Requirement
Change in Shade	Grade	4-5	4-5	4-5	-
Staining On Multi-fibre Stripe					-
Acetate	Grade	4-5	4-5	4-5	-
Cotton	Grade	4-5	4-5	4-5	-
Polyamide	Grade	4-5	4-5	4-5	-
Polyester	Grade	4-5	4-5	4-5	-
Acrylic	Grade	4-5	4-5	4-5	-
Wool	Grade	4-5	4-5	4-5	-
-	Unit	G	H	I	Requirement
Change in Shade	Grade	4-5	4-5	4-5	-
Staining On Multi-fibre Stripe					-
Acetate	Grade	4-5	4-5	4-5	-
Cotton	Grade	4-5	4-5	4-5	-
Polyamide	Grade	4-5	4-5	4-5	-
Polyester	Grade	4-5	4-5	4-5	-
Acrylic	Grade	4-5	4-5	4-5	-
Wool	Grade	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.

Colour Fastness To Perspiration

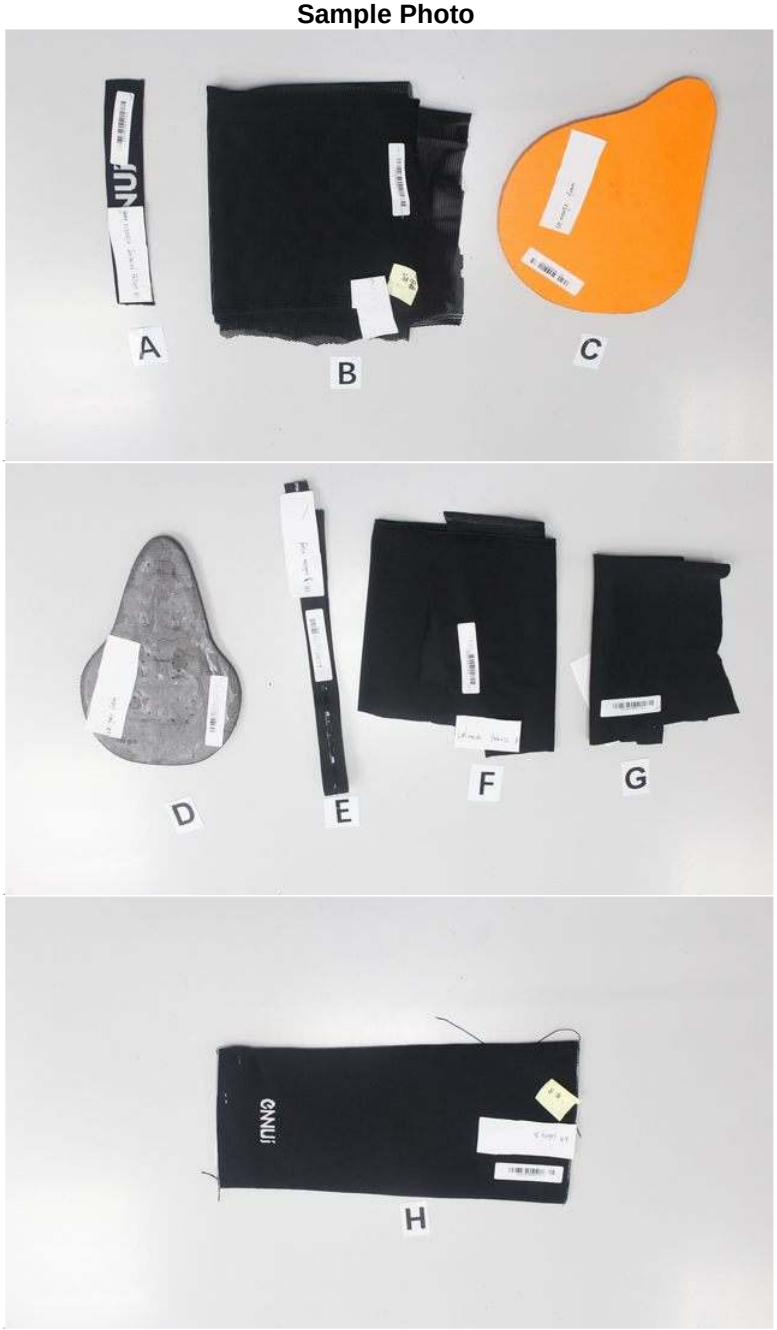
(ISO 105-E04:2013; test specimen in vertical position)

Alkaline

-	Unit	A	B	C	Requirement
Change in Shade	Grade	4-5	4-5	4-5	-
Staining On Multi-fibre Stripe					-
Acetate	Grade	4-5	4-5	4-5	-
Cotton	Grade	4-5	4-5	4-5	-
Polyamide	Grade	4-5	4-5	4-5	-
Polyester	Grade	4-5	4-5	4-5	-
Acrylic	Grade	4-5	4-5	4-5	-
Wool	Grade	4-5	4-5	4-5	-
-	Unit	D	E	F	Requirement
Change in Shade	Grade	4-5	4-5	4-5	-
Staining On Multi-fibre Stripe					-
Acetate	Grade	4-5	4-5	4-5	-
Cotton	Grade	4-5	4-5	4-5	-
Polyamide	Grade	4-5	4-5	4-5	-
Polyester	Grade	4-5	4-5	4-5	-
-	Unit	D	E	F	Requirement
Acrylic	Grade	4-5	4-5	4-5	-
Wool	Grade	4-5	4-5	4-5	-
-	Unit	G	H	I	Requirement
Change in Shade	Grade	4-5	4-5	4-5	-
Staining On Multi-fibre Stripe					-
Acetate	Grade	4-5	4-5	4-5	-
Cotton	Grade	4-5	4-5	4-5	-
Polyamide	Grade	4-5	4-5	4-5	-
Polyester	Grade	4-5	4-5	4-5	-
Acrylic	Grade	4-5	4-5	4-5	-
Wool	Grade	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. The content of this II and III is extracted from the test report number GZHL2107027377HM.
5. The item with * means it has been retested.

Sample photos:

Sample Received Knee		
Sample Received Elbow		

Test areas and test sites L/XL		
Test areas and test sites S/M		

Test areas and test sites XXS/XS		

End of Report