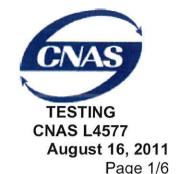


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Reasons



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T 4/-1	
Test(s)	

Product Category:

Product Type:

requested:

Sample description: HPPE Cut Resistant gloves

Style / Article no.: TEK 3000

Ref no.:

Order no.:

End use:

Buyer: Exported to:

Date of receipt of

application form:

Date of receipt of sample: Testing period:

August 8, 2011pm August 8, 2011pm August 8, 2011pm--August 16, 2011

Number of sample(s):

SEVERAL PAIRS OF SAMPLES

Service required:

REGULAR

1. Conclusion:

	Testing	Result	Combine / Separate Test Item(s)	Failed Test Item(s)	
	Dexterity	Level 5	(S01)	` ´	1
	Sizing of glove	8, 9, 10, 11	(S01) (S06) (S07) (S08)		■This tes
	Tear resistance of glove	Level 4	(S01)	-	by CNAS
	Abrasion resistance	Level 4	(S01)		
	Puncture resistance of glove	Level 2	(S01)		
	Blade cut resistance of glove	Level 3	(S01)		
	Azo dyes	PPPP	(S02) (S03) (S04) (S05)		1
_	pH value	PPPP	(S02) (S03) (S04) (S05)		1
-	Dimethyl Fumarate Content	Р	(S02)		1
	Tin detection	Р	(S02)		Note: P:

st is not covered accreditation.

Pass F : Fail

Comments:

For the submitted sample, the Dexterity got level 5; the expect size of glove 8, 9, 10, 11 and the pH value tests passed the requirement according to EN420 standard.

The Abrasion resistance of glove got level 4; the Blade cut resistance of glove got level 3; the Tear resistance of glove got level 4; the Puncture resistance of glove got level 2 according to EN388 standard. All the other tests passed the requirements.

Approved by

Original Signed Henry YAN

Lab Supervisor

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2. Label(s) on the sample(s):

Sample(s)	Size	Style / Article no.:	Sub-sample(s)	Component(s)	Colour
(01)		TEK 3000	(a)	Glove	Grey
			(b)	Palm	Grey
			(c)	Back	Grey
		TEK 3000	(d)	Wrist	Grey
			(e)	Binding	White
(02)			(a)	Glove	Grey
(03)			(a)	Glove	Grey
(04)			(a)	Glove	Grey

3. Sample(s) description assigned by laboratory:

o. campic(o)	accoription accie	filed by laboratory.
Test item	Sample(s)	Combine / Separate sub-sample(s)
(S01)	(01)	(a)
(S02)	(01)	(b)
(S03)	(01)	(c)
(S04)	(01)	(d)
(S05)	(01)	(e)
(S06)	(02)	(a)
(\$07)	(03)	(a)
(S08)	(04)	(a)



4. Testing result:

4.1 EN 420

TEST METHOD	Test item(s)	Do muinomo ant	P/F
TEST WETHOD	(S01)	Requirement	P/F
1 Dexterity of glove # (EN 420:2003 §6.2)			
Highest value of four tests :	5.0		
Performance Level :	5		

Note: P: Pass F: Fail

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TEST METHOD	Tes	Test item(s)		
Studenski kalinder - gristopila navritskog destatok		(S01)		P/F
1 Sizing of glove	Total length	Maximum		1
(EN 420:2003 §6.1)	(mm)	corresponding sizes		
Test 1	243	8		
Test 2	242	8	8	Р
Test 3	242	8	O	-
Test 4	242	8		

Note: P: Pass F: Fail

TEST METHOD	Tes	Requirement		
			P/F	
2 Sizing of glove (EN 420:2003 §6.1) Test 1 Test 2 Test 3 Test 4	Total length (mm) 255 255 255 255	Maximum corresponding sizes 9 9 9 9	9	Р

Note: P: Pass F: Fail

TEST METHOD	Tes			
		(S07)	Requirement	P/F
3 Sizing of glove (EN 420:2003 §6.1) Test 1 Test 2 Test 3 Test 4	Total length (mm) 265 265 264 265	Maximum corresponding sizes 10 10 10 10	10	Р

Note: P: Pass F: Fail

	TEST METHOD	Tes	Test item(s) (S08)		
	and the second of the second o				
4	Sizing of glove (EN 420:2003 §6.1) Test 1 Test 2 Test 3 Test 4	Total length (mm) 275 275 273 274	Maximum corresponding sizes 11 11 11	11	Р

Note: P: Pass F: Fail

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4.2 EN 388

4.4	2 EN 388			•	
	TEST METHOD		tem(s)	Requirement	P/F
		(S01)			
1	Blade cut resistance of glove * (NF EN 388:2004 §6.2)	Inde	ex (I)		
	Sequence	Test 1	Test 2	9	
	1	5.3	5.0		
	2	5.2	5.1	595	
	3	5.4	4.9		
	4	5.4	5.6		
	5	6.0	5.9		
	Average (I):	5.5 ;	5.3		
	Lowest average value (I):	; 5.	3		
	Performance Level :	1 3	3		
2	Tear resistance of glove #	- +	e (e)		
	(NF EN 388:2004 §6.3)				
	Lowest value of four tests (N):	29	97		
	Performance Level :	4			
	Puncture resistance of glove #				
3	(NF EN 388:2004 §6.4)				
	Lowest value of four tests (N):	7	0	•••	
24	Performance Level :	. 2	<u> </u>		
	Abrasion resistance of glove #		÷		
4	(NF EN 388:2004 §6.1)				
	Lowest value of four tests :	>80	000		
	Performance Level :	4			

^{*} Refer to the below page for details of the performance level of glove.

Note: P: Pass F: Fail

Table of Performance Level for Glove

Test Item			Performa	nce Level		
i est item	0 ##	1	2	3	4	5
Abrasion Resistance (NF EN 388:2004 §6.1) Number of cycles (minimum)	< 100	100	500	2000	8000	
Blade Cut Resistance (NF EN 388:2004 §6.2) Index (I) (minimum)	< 1.2	1.2	2.5	5.0	10.0	20.0
Tear Resistance (NF EN 388:2004 §6.3) Force (N) (minimum)	< 10	10	25	50	75	
Puncture Resistance (NF EN 388:2004 §6.4) Force (N) (minimum)	< 20	20	60	100	150	
Dexterity (EN 420:2003 §6.2) Diameter of pin (in mm)		11.0	9.5	8.0	6.5	5.0

Performance level 0 means the glove falls below the minimum performance level for the given individual hazard.

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4.3 Azo dves

TEST METHOD	Test Items (S02)	Client Requirement	P/F
1 Azo dyes* (mg/kg) (EN 14362-1:2004)	<10.0	≤30	Р

TEST METHOD	Test Items (S03)	Client Requirement	P/F
2 Azo dyes* (mg/kg) (EN 14362-2:2004)	<10.0	≤30	Р

TEST METHOD	Test Items (S04)	Client Requirement	P/F
3 Azo dyes* (mg/kg) (EN 14362-1:2004)	<10.0	≤30	Р
4 Azo dyes* (mg/kg) (EN 14362-2:2004)	<10.0	≤30	Р

TEST METHOD	Test Items (S05)	Client Requirement	P/F
5 Azo dyes* (mg/kg) (EN 14362-2:2004)	<10.0	≤30	Р

*Test method according to EN14362-1:2004, EN14362-2:2004 or CEN ISO/TS17234:2010 or §64 LFGB B 82.02-9:2006. Removal of fat by n-hexane (in case of leather), treatment with citric buffer, reductive cleavage with sodium dithionite, extraction with ether, detection by GC/MS and/or HPLC/DAD. (Detection limit: 5 mg/kg)

List of aromatic amines

(Detection limit: 5mg/kg)

Benzidine

4-Aminodiphenyl 4-Chloro-O-Toluidine

2-Naphthylamine

O-Aminoázotoluene

5-Nitro-O-Toluidine 4-Chloroaniline

4-Methoxy-M-Phenylenediamine 4,4'-Diaminodiphenylmethane

3,3'-Dichlorobenzidine

3,3'-Dimethoxybenzidine 3,3'-Dimethylbenzidine 4,4'-Methylenedi-o-Toluidine

P-Cresidine

4,4'-Methylene-BIS-(2-Chloroaniline)

4,4'-Oxydianiline 4,4'-Thiodianiline

O-Toluidine

2,4,5-Trimethylaniline

4-Methyl-M-Phenylenediamine

O-Anisidine 4-Aminoazobenzene

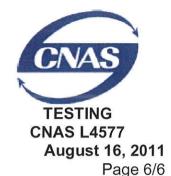
14 1 14 W

Interpretation of test results:
(1) In the case of levels per amine component <=30 mg/kg: Not detected. According to the analysis as carried out, azo colourants banned under the ordinance on commodities were not detected in the article submitted.
(2) In the case of levels per amine component >30 mg/kg: The analysis result suggests that the article submitted has been manufactured or treated by using azo colourants banned under the ordinance on commodities.
(3) In case of a result between 25 and 35 mg/kg: We remark that due to the error range of the method, these measurement values represent a border line case.
(4) For polyester blend sample, two test methods (EN 14362-1:2004 and EN 14362-2:2004) are performed on the sample, result of either one test method or both test methods shown any forbidden amines with content greater than 30 mg/kg will be considered as detected.
(5) For determination of 4-Aminoazobenzene, §64 LFGB B 82.02-9:2006 will be performed on the sample.

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4.4 pH value

According to EN ISO 3071:2006

TEST METHOD	Test Items			Client's	P/F	
TEST WETHOD	(S02)	(S03)	(S04)	(S05)	Requirement	P/F
pH value Average value(nearest to 0.1)	7.3	6.9	7.0	6.4	>3.5 & <9.5	PPPP

Note: P: Pass F: Fail

4.5 Dimethyl Fumarate Content:

TEST METHOD	Test Items (S02)	Requirement	P/F
1 Dimethyl Fumarate Content (CAS: 624-49-7) Method used: extracted with organic solvent, GCMS analysis			
Detection Limit: =0.1mg/kg	<0.1	< 0.1	Р

Note: P: Pass F: Fail

Remark:

Laboratory Reporting Limit = 0.1 mg/kg Mg/kg = milligram per kilogram

ND = Not detected

Method: Sample was extracted with organic solvent and analyzed by Gas Chromatograph Mass Spectrometer.

4.6 Tin Detection:

TEST METHOD	Test Items	Requirement	P/F
TEST WILTHOD	(S02)	Requirement	E/I
Tin XRF Screening			
(With reference to IEC 62321 (Ed.1) Chapter 6)			
Detection limit: 350 (mg/kg or ppm)	<350	<350	Р

Note: P: Pass F: Fail

- End of report -

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