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检测
TESTING
CNAS L0220

TEST REPORT

Number: GZHT90984373

Applicant: HONEYWELL SALISBURY
4091 AZALEA DRIVE, NORTH CHARLESTON,
USA

Date: Aug 14, 2020

Attn: RAMESH KANNAN

Sample Description:

Three (3) groups of submitted samples said to be:
(A) Twelve (12) pairs 52000 Men's safety boots in Red/Black
(B) Twelve (12) pairs 52001 Men's safety boots in Red/Black
(C) Five (5) pairs of Non-metallic insole boards used for Sample B.

Test Standard/Method	:	CSA Z195-14 ASTM F2413-18 ASTM F2913-19 SATRA TM144: 2011
Size	:	6, 9, 12, 16
Buyer's Name	:	--
Ref. No	:	52000 &52001
Brand	:	--
Manufacturer	:	--
Colour	:	Red/Black
Vendor	:	--
Supplier	:	--
P.O. No.	:	178358
Toe Cap	:	Non Metallic
Vamp Lining	:	CR
Quarter Lining	:	XR
Seat Region Lining	:	CR
Sole	:	Rubber
Country Of Origin	:	China
Goods Exported To	:	U.S.A.
Date Received/Date Test Started	:	Aug. 06, 2020
Date Final Information Confirmed:		--

Test Result Please Refer To Attached Page(S).

Should you have any query on this report, you may contact at gzfootwear@intertek.com

Authorized By:
For Intertek Testing Services Shenzhen Ltd.
Guangzhou Branch

Guiliang Dong
Senior Lab Manager

MI / bettyxlchen

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Tests Conducted (As Requested By The Applicant)

1 Protective Toe Impact Resistance (I) (ASTM F2412-18a, 5, Impact Force: 101.7 J (75 lbf), Testing Performed At 22 ℃ And 50% RH)

	(A)	ASTM F2413-18 Requirement	Pass / Fail
	Interior Height Clearance		
Left:	25.5 mm	≥ 12.7 mm	Pass
Right:	27.4 mm	≥ 12.7 mm	Pass
Left:	27.2 mm	≥ 12.7 mm	Pass

	(B)	ASTM F2413-18 Requirement	Pass / Fail
	Interior Height Clearance		
Left:	22.8 mm	≥ 12.7 mm	Pass
Right:	24.9 mm	≥ 12.7 mm	Pass
Left:	24.3 mm	≥ 12.7 mm	Pass

2 Protective Toe Compression Resistance (C) (ASTM F2412-18a, 6, Compression Force: 11 121 N (2 500 lbf), Testing Performed At 22 ℃ And 50% RH)

	(A)	ASTM F2413-18 Requirement	Pass/Fail
	Interior Height Clearance		
Left:	23.1 mm	≥ 12.7 mm	Pass
Right:	26.0 mm	≥ 12.7 mm	Pass
Right:	24.0 mm	≥ 12.7 mm	Pass

	(B)	ASTM F2413-18 Requirement	Pass/Fail
	Interior Height Clearance		
Left:	23.0 mm	≥ 12.7 mm	Pass
Right:	21.2 mm	≥ 12.7 mm	Pass
Right:	22.8 mm	≥ 12.7 mm	Pass

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Tests Conducted (As Requested By The Applicant)

3 Puncture Resistance Footwear (PR) (ASTM F2412-18a, 11, Conditioned At 22 ℃ And 50 % RH For 24 h And Testing Performed At The Same Conditions.)

	(C)	ASTM F2413-18 Requirement	Pass/Fail
Left:	The Test Pin Did Not Penetrate Beyond The Face Of The Material Nearest The Foot Before 1 200 N.	Min. 1 200 N (*)	Pass
Right:	The Test Pin Did Not Penetrate Beyond The Face Of The Material Nearest The Foot Before 1 200 N.	Min. 1 200 N (*)	Pass
Right:	The Test Pin Did Not Penetrate Beyond The Face Of The Material Nearest The Foot Before 1 200 N.	Min. 1 200 N (*)	Pass

Remark: * = The Test Pin Does Not Visually Penetrate Beyond The Face Of The Material Nearest The Foot.

4 Flex Resistance For Puncture Resistant Devices (ASTM F2412-18a, 11.7 & CSA Z195-14, 6.3.2)

	(C)	ASTM F2413-18 Requirement	Pass/Fail
Left:	No Signs Of De-lamination Of Layers Or Cracking After 1.5 x 10^6 Flexes.	*	Pass
Right:	No Signs Of De-lamination Of Layers Or Cracking After 1.5 x 10^6 Flexes.	*	Pass
Left:	No Signs Of De-lamination Of Layers Or Cracking After 1.5 x 10^6 Flexes.	*	Pass

Remark: * = No Signs Of De-lamination Of Layers Or Cracking After 1.5 x 10^6 Flexes.

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Tests Conducted (As Requested By The Applicant)

5 Toecap Impact Resistance (CSA Z195-14, 6.2, Grade 1: 125 Joules)

(A)		The Internal Toe Clearance	Requirement	Pass/Fail
Size M's 9	Left:	23.2 mm	Min. 12.7 mm (*)	Pass
	Right:	24.1 mm	Min. 12.7 mm (*)	Pass

(B)		The Internal Toe Clearance	Requirement	Pass/Fail
Size M's 9	Left:	21.8 mm	Min. 12.7 mm (*)	Pass
	Right:	22.0 mm	Min. 12.7 mm (*)	Pass

Remark: * = In Addition, The Protective Toecap Shall Not Fracture Through Its Thickness.

6 Toecap Impact Resistance (CSA Z195-14, 5.1.1, -18 ˚C x 12h Grade 1: 125 Joules)

(A)		The Internal Toe Clearance	Requirement	Pass/Fail
Size M's 9	Left:	26.2 mm	Min. 12.7 mm (*)	Pass
	Right:	27.2 mm	Min. 12.7 mm (*)	Pass

(B)		The Internal Toe Clearance	Requirement	Pass/Fail
Size M's 9	Left:	25.2 mm	Min. 12.7 mm (*)	Pass
	Right:	25.4 mm	Min. 12.7 mm (*)	Pass

Remark: * = In Addition, The Protective Toecap Shall Not Fracture Through Its Thickness.

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7 Slip Resistance(ASTM F2913-19)

Conditioning For Specimen:
Temperature: (23±2) ℃
Relative Humidity: (50±5)%
Period: At Least 3 Hours

Test Condition:
Test Surface: Clay Tile
Vertical Force: 500 N

Sample	Size	Sequence	Conditions	Modes	Results
(A)	9 (Left)	Wet After Dry	Dry	Forward Heel Slip	0.84
				Backward Forepart Slip	1.38
				Forward Flat Slip	1.24
			Wet	Forward Heel Slip	0.74
				Backward Forepart Slip	0.78
				Forward Flat Slip	0.84
	(Right)	Dry After Wet	Wet	Forward Heel Slip	0.73
				Backward Forepart Slip	0.80
				Forward Flat Slip	0.82
			Dry	Forward Heel Slip	0.85
				Backward Forepart Slip	1.33
				Forward Flat Slip	1.20

Sample	Size	Sequence	Conditions	Modes	Results
(B)	9 (Left)	Wet After Dry	Dry	Forward Heel Slip	0.85
				Backward Forepart Slip	0.84
				Forward Flat Slip	0.98
			Wet	Forward Heel Slip	0.55
				Backward Forepart Slip	0.58
				Forward Flat Slip	0.57
	(Right)	Dry After Wet	Wet	Forward Heel Slip	0.54
				Backward Forepart Slip	0.58
				Forward Flat Slip	0.60
			Dry	Forward Heel Slip	0.88
				Backward Forepart Slip	0.85
				Forward Flat Slip	0.99

Note:
It Must Be Noted That The Slip Resistance Test Carried Out In This Report Denotes An Indication Of Slip Of This Particular Footwear/Component On The Surface Mentioned In The Test Item. It Is Important To Note That Footwear Is Subject To Many Different Conditions Encountered In Everyday Use And That It Is Impossible To Make Footwear Resistant To Slip In All Conditions. Nevertheless, It Is Generally Accepted That Problems Are Minimized If The Guideline Coefficients Of Friction Are Achieved.

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8 Slip Resistance (SATRA TM144: 2011, Ice Surface At -7℃, Vertical Force: 500 N)

(B)

	Dry Smooth Icy	Wet Icy
Heelpart	0.20	0.15
Forepart	0.14	0.09
Heelpart	0.23	0.16
Forepart	0.16	0.10

Note:

1. The Outsole Of Test Sample Was Pre-Chilled To -7℃ In Water-Ethanol Bath Before Testing.
2. It Must Be Noted That The Slip Resistance Test Carried Out In This Report Denotes An Indication Of Slip Of This Particular Footwear/Component On The Surface Mentioned In The Test Item. It Is Important To Note That Footwear Is Subject To Many Different Conditions Encountered In Everyday Use And That It Is Impossible To Make Footwear Resistant To Slip In All Conditions. Nevertheless, It Is Generally Accepted That Problems Are Minimized If The Guideline Coefficients Of Friction Are Achieved.

Expended Uncertainty: 0.01, With k = 2 At 95% Confidence Level.

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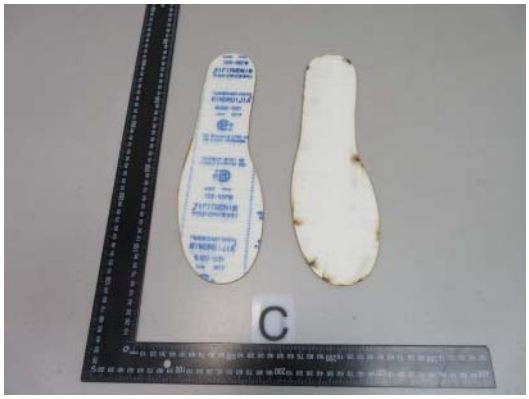

End Of Report

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