

TESTING - RAPTOR 84913 & 84915

INTERTEK - The leading provider of quality, safety, testing, inspection, and certification.
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- **Mark II Slip Resistance**
- Footwear industry standard test method for measuring outsole slip resistance.

Required	Results	Material
> 0.50	0.78	Dry
> 0.30	0.74	Wet

- **Abrasion Resistance - NBS Method**
- Most recognized test in the rubber industry for outsole abrasion resistance.

Required	Results
> 70%	107%

TESTING - 84913 & 84915

- **Ross Flex Method**
- Standard test method for measuring outsole flexing resistance.

Conditions	Results	Conclusion
Room Temperature After 50,000 Cycles	No Cut Growth	The initial cut has no increase in length. - PASS
50° C 95% Humidity After 50,000 Cycles	No Cut Growth	The initial cut has no increase in length. - PASS

- **Non-Marking Test**
- Standard test method for measuring outsole carbon transfer.

Required	Results (Grade)
> 4	4.5

- **Oil Resistance**
- Evaluates the effects on rubber materials caused by exposure to fuels, oils, and liquids.

Required	Results
Max. 12%	0.7%

TESTING - DEFENDER 84972 & 84973

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- SATRA Slip Resistance**
 - Footwear industry standard test method for measuring outsole slip resistance.

Required		Results	Material
> 0.3%	Heel Part:	0.74	Dry
	Forepart:	0.66	
> 0.3%	Heel Part:	0.69	Wet
	Forepart:	0.61	

- Abrasion Resistance - NBS Method**
 - Most recognized test in the rubber industry for outsole abrasion resistance.

TESTING - 84972 & 84973

- Ross Flex Method**
 - Standard test method for measuring outsole flexing resistance.

Conditions	Results	Conclusion
Room Temperature After 50,000 Cycles	No Cut Growth	The initial cut has no increase in length. - PASS
50° C 95% Humidity After 50,000 Cycles	No Cut Growth	The initial cut has no increase in length. - PASS

- Non-Marking Test**
 - Standard test method for measuring outsole carbon transfer.

Required	Results (Grade)
> 4	4.5

- Oil Resistance**
 - Evaluates the effects on rubber materials caused by exposure to fuels, oils, and liquids.

Required	Results
< 5%	0.4%

TEST REPORT

Test Report No. 87.441.21.1854.01
Dated 2021-07-23



Client: Weyco Group, Inc.
Applicant:
Address:
Attn: Arianna

Colour: Black
Style No.: 84972-005/84973-005
PO. No.: 360037/360038
Country of Origin: China
Season: -
Buyer: Weyco Group, Inc
Export to: -
Age Group: Adult

Receipt Date of Sample: Received on 2021-07-14

Date of Testing: From 2021-07-15 to 2021-07-23

Sample submitted: The sample(s) was (were) submitted by applicant and identified.

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Testing Location: Xiamen

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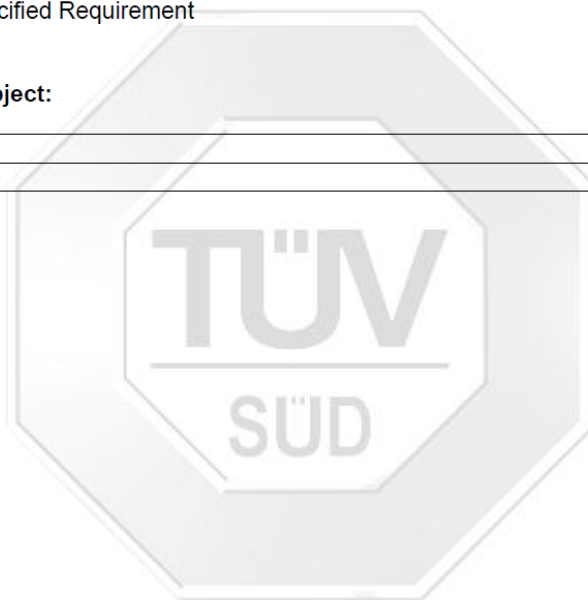
ORIGINAL

Test Parameters	Conclusion	Failed Component(s)	Detected Quantity
Weyco Group Requirement			
Outsole Slip Resistance	Pass	-	-
Ross Flexing Resistance For Sole After Hydrolysis	Pass	-	-
Ross Flexing Resistance For Sole	Pass	-	-
Oil Resistance	Pass	-	-
Outsole Abrasion Resistance-NBS Method	Pass	-	-
Floor Marking	Pass	-	-

Remark: Pass=Meet the Requirement
Fail = Below the Requirement
* = No Specified Requirement

Description of the Test Subject:

Test parts	
001	Black outsole



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Testing Location: Xiamen

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Test Results

1 Outsole Slip Resistance

SATRA TM144:2011

Applied vertical force:500N ,Test dry before wet, Clay tile surface

Sample	Result(s)		Client's Specification	Conclusion
001	Dry	Heel part:	0.74	Pass
		Forepart:	0.66	
	Wet	Heel part:	0.69	
		Forepart:	0.61	

Notes: 1.The contact angle between the bottom of the heel and the floor was $7\pm0.5^\circ$.

2 Ross Flexing Resistance For Sole After Hydrolysis

ASTM D1052:2009,with cut

Condition:50°C / 95%RHx24hours

Test atmosphere: 23±2°C / 50±5%RH

Sample		Result(s)	Client's Specification	Conclusion
001	After 50,000 cycles	The initial cut has no significant increase in length	No cut growth	Pass

Notes: 1. Thickness of specimen:4.56mm.

3 Ross Flexing Resistance For Sole

ASTM D1052:2009; with cut

Without conditioning

Test atmosphere: 23±2°C / 50±5%RH

Sample		Result(s)	Client's Specification	Conclusion
001	After 50,000 cycles	The initial cut has no significant increase in length	No cut growth	Pass

Notes: 1. "mm/kc" denotes millimeter per kilo cycles.
2. Thickness of specimen : 4.61mm.

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4 Oil Resistance

ASTM D471-16a

Test atmosphere: IRM 903# Oil, 23°C, 24hours

Sample	Result(s)		Client's Specification	Conclusion
001	Volume Swell	0.4%	≤5%	Pass

5 Outsole Abrasion Resistance-NBS Method

ASTM D1630:2016

Sample	Result(s)		Client's Specification	Conclusion
001	Abrasive Index:	112.6	≥70%	Pass

6 Floor Marking

SATRA TM223:2000

Sample	Result(s)		Client's Specification	Conclusion
001	4.5 Grade		≥4.0 Grade	Pass

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Sample Photo:



TÜV SÜD Certification and Testing (China) Co., Ltd. Ningbo Branch
Testing Center

Prepared by:

Abby Wang

Abby Wang
Softlines Department

Authorized by:

Barry Sun

Barry Sun
Softlines Department

-End of Test Report-

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Testing Location: Xiamen

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Attn: ARIANNA

Sample Description:

Several pieces of submitted samples said to be Black outsole.

Standard : --
Buyer's Name : WEYCO (Self- Reference)
Colour : Black
Vendor : --
Manufacturer : --
Supplier : --
Style No./Name : 84972/84973
P.O. No. : --
Ref. : EVA+ Rubber Outsole
Country Of Origin : --
Goods Exported To : U.S.A.
Date Received/Date Test Started : May 11, 2021
Date Final Information Confirmed: --

Conclusion:

Index	Test Item	Result
1.	Abrasion Resistance	Pass
2.	Oil Resistance	Pass

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



1 Abrasion Resistance (ASTM D1630-16, NBS Abrader):

117%

Applicant's
Requirement

Min. 70%

2 Oil Resistance (ASTM D471-16a, IRM 903# Oil, 22 Hours, 23°C)

Volume Swell:

0.8%

Applicant's
Requirement

Max. 12%





End of Report

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