



**PRECISION TESTING LABORATORIES**

313 Hill Avenue; Nashville, TN 37210-4711  
 Phone 615-254-3401 Fax 615-254-3488  
 www.precisiontesting.com

**Laboratory Report No.** 45963  
 2-Jul-20

Page 1 of 2

Ms. Carolin Gey  
 kybun USA LLC  
 14325 N 79th St.  
 Suite D  
 Scottsdale, AZ 85260

Cc: Ms. Annika Heitmann

PO #: n/a

Item: One (1) pair of footwear

Identification: kybun men nimbus sole

Purpose: Measuring the Coefficient of Friction for Evaluation of Slip Performance; ASTM F2913-19

Test	Unit of Measure	Specimen Results					Average
<b>Measuring the Coefficient of Friction for Evaluation of Slip Performance</b>							
<b>ASTM F 2913-19</b>							
Temperature: 72°F (50% RH)							
Vertical Force: 500 (± 25) N							
SATRA Quarry							
<b>Coefficient of Friction - Backward Forepart Slip</b>							
<u>Dry</u>	Left	0.56	0.56	0.56	0.56	0.56	0.56
	Right	0.54	0.54	0.55	0.55	0.55	
<u>Wet</u>	Left	0.48	0.50	0.51	0.51	0.52	0.50
	Right	0.54	0.55	0.55	0.55	0.54	
<u>Oily/Wet</u>	Left	0.48	0.47	0.47	0.47	0.47	0.47
	Right	0.49	0.49	0.49	0.48	0.48	
<b>Coefficient of Friction - Forward Heel Slip</b>							
<u>Dry</u>	Left	0.54	0.53	0.54	0.54	0.54	0.54
	Right	0.53	0.54	0.55	0.54	0.55	
<u>Wet</u>	Left	0.54	0.55	0.56	0.56	0.56	0.55
	Right	0.53	0.55	0.56	0.56	0.56	
<u>Oily/Wet</u>	Left	0.43	0.43	0.42	0.42	0.42	0.42
	Right	0.46	0.44	0.44	0.44	0.43	

**ASTM F2913 Reagent Application**

SATRA Quarry = SATRA Quarry Tile.

Dry= Dry.

Wet= Section 10.4.2 - Distilled or deionized water shall be applied to the flooring to thoroughly wet the surface

Oily/Wet= Section 10.4.5 - 0.2 ± 0.02 g (approximately 8 drops) of corn oil applied by smearing over a 150 mm by 150 mm area of the flooring and thoroughly wetting the oily surface with distilled or deionized water



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Cc: Ms. Annika Heitmann

PO #: n/a

Item: One (1) pair of footwear

Identification: kybun women nimbus sole

Purpose: Measuring the Coefficient of Friction for Evaluation of Slip Performance; ASTM F2913-19

Test	Unit of Measure	Specimen Results					Average
<b>Measuring the Coefficient of Friction for Evaluation of Slip Performance</b>							
<b>ASTM F 2913-19</b>							
Temperature: 72°F (50% RH)							
Vertical Force: 500 (± 25) N							
SATRA Quarry							
<b>Coefficient of Friction - Backward Forepart Slip</b>							
<u>Dry</u>	Left	0.61	0.62	0.62	0.62	0.62	0.62
	Right	0.62	0.63	0.63	0.63	0.63	0.63
<u>Wet</u>	Left	0.54	0.54	0.54	0.54	0.55	0.54
	Right	0.57	0.57	0.57	0.57	0.56	0.57
<u>Oily/Wet</u>	Left	0.46	0.47	0.46	0.46	0.45	0.46
	Right	0.48	0.49	0.47	0.47	0.46	0.47
<b>Coefficient of Friction - Forward Heel Slip</b>							
<u>Dry</u>	Left	0.74	0.72	0.73	0.74	0.74	0.73
	Right	0.64	0.63	0.63	0.64	0.64	0.64
<u>Wet</u>	Left	0.55	0.54	0.55	0.55	0.55	0.55
	Right	0.52	0.52	0.52	0.52	0.52	0.52
<u>Oily/Wet</u>	Left	0.43	0.43	0.43	0.43	0.42	0.43
	Right	0.45	0.41	0.41	0.41	0.41	0.42

**ASTM F2913 Reagent Application**

SATRA Quarry = SATRA Quarry Tile.

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Wet= Section 10.4.2 - Distilled or deionized water shall be applied to the flooring to thoroughly wet the surface

Oily/Wet= Section 10.4.5 - 0.2 ± 0.02 g (approximately 8 drops) of corn oil applied by smearing over a 150 mm by 150 mm area of the flooring and thoroughly wetting the oily surface with distilled or deionized water



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**Laboratory Report No.** 46550  
 22-Sep-20

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Ms. Carolin Gey  
 kybun USA LLC  
 14325 N 79th St.  
 Suite D  
 Scottsdale, AZ 85260

**Cc:** n/a

**PO #:** n/a

**Item:** One (1) pair of footwear

**Identification:** kybun men Strato sole

**Purpose:** Measuring the Coefficient of Friction for Evaluation of Slip Performance; ASTM F2913-19

Test	Unit of Measure	Specimen Results					Average
<b>Measuring the Coefficient of Friction for Evaluation of Slip Performance</b>							
<b>ASTM F 2913-19</b>							
Temperature: 72°F (50% RH)							
Vertical Force: 500 (± 25) N							
SATRA Quarry							
<b>Coefficient of Friction - Backward Forepart Slip</b>							
<u>Dry</u>	Left	0.40	0.40	0.40	0.39	0.39	0.40
	Right	0.42	0.41	0.41	0.40	0.40	0.41
<u>Wet</u>	Left	0.29	0.29	0.29	0.29	0.30	0.29
	Right	0.32	0.31	0.31	0.31	0.31	0.31
<u>Oily/Wet</u>	Left	0.22	0.22	0.22	0.21	0.25	0.22
	Right	0.23	0.23	0.24	0.23	0.23	0.23
<b>Coefficient of Friction - Forward Heel Slip</b>							
<u>Dry</u>	Left	0.48	0.47	0.47	0.46	0.46	0.47
	Right	0.44	0.44	0.44	0.44	0.43	0.44
<u>Wet</u>	Left	0.32	0.33	0.32	0.32	0.32	0.32
	Right	0.33	0.32	0.32	0.32	0.32	0.32
<u>Oily/Wet</u>	Left	0.28	0.26	0.26	0.26	0.26	0.26
	Right	0.26	0.26	0.25	0.25	0.25	0.25

**ASTM F2913 Reagent Application**

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Dry= Dry.

Wet= Section 10.4.2 - Distilled or deionized water shall be applied to the flooring to thoroughly wet the surface

Oily/Wet= Section 10.4.5 - 0.2 ± 0.02 g (approximately 8 drops) of corn oil applied by smearing over a 150 mm by 150 mm area of the flooring and thoroughly wetting the oily surface with distilled or deionized water



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**Laboratory Report No.** 46551  
 22-Sep-20

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Ms. Carolin Gey  
 kybun USA LLC  
 14325 N 79th St.  
 Suite D  
 Scottsdale, AZ 85260

**Cc:** n/a

**PO #:** n/a

**Item:** One (1) pair of footwear

**Identification:** kybun women Strato sole

**Purpose:** Measuring the Coefficient of Friction for Evaluation of Slip Performance; ASTM F2913-19

Test	Unit of Measure	Specimen Results					Average
<b>Measuring the Coefficient of Friction for Evaluation of Slip Performance</b>							
<b>ASTM F 2913-19</b>							
Temperature: 72°F (50% RH)							
Vertical Force: 500 (± 25) N							
SATRA Quarry							
<b>Coefficient of Friction - Backward Forepart Slip</b>							
<u>Dry</u>	Left	0.32	0.32	0.33	0.33	0.33	0.33
	Right	0.32	0.33	0.33	0.33	0.32	0.33
<u>Wet</u>	Left	0.26	0.27	0.28	0.28	0.28	0.27
	Right	0.28	0.27	0.27	0.28	0.28	0.28
<u>Oily/Wet</u>	Left	0.26	0.27	0.27	0.28	0.27	0.27
	Right	0.26	0.26	0.26	0.25	0.25	0.26
<b>Coefficient of Friction - Forward Heel Slip</b>							
<u>Dry</u>	Left	0.34	0.34	0.34	0.34	0.34	0.34
	Right	0.34	0.33	0.33	0.33	0.33	0.33
<u>Wet</u>	Left	0.31	0.32	0.32	0.32	0.32	0.32
	Right	0.30	0.30	0.31	0.31	0.31	0.31
<u>Oily/Wet</u>	Left	0.28	0.29	0.29	0.29	0.28	0.29
	Right	0.27	0.27	0.28	0.27	0.27	0.27

**ASTM F2913 Reagent Application**

SATRA Quarry = SATRA Quarry Tile.

Dry= Dry.

Wet= Section 10.4.2 - Distilled or deionized water shall be applied to the flooring to thoroughly wet the surface

Oily/Wet= Section 10.4.5 - 0.2 ± 0.02 g (approximately 8 drops) of corn oil applied by smearing over a 150 mm by 150 mm area of the flooring and thoroughly wetting the oily surface with distilled or deionized water



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Ms. Carolin Gey  
 kybun USA LLC  
 14325 N 79th St.  
 Suite D  
 Scottsdale, AZ 85260

**Cc:** n/a

**PO #:** n/a

**Item:** One (1) pair of footwear

**Identification:** kybun men Tropo sole

**Purpose:** Measuring the Coefficient of Friction for Evaluation of Slip Performance; ASTM F2913-19

Test	Unit of Measure	Specimen Results					Average
<b>Measuring the Coefficient of Friction for Evaluation of Slip Performance</b>							
<b>ASTM F 2913-19</b>							
Temperature: 72°F (50% RH)							
Vertical Force: 500 (± 25) N							
SATRA Quarry							
<b>Coefficient of Friction - Backward Forepart Slip</b>							
<u>Dry</u>	Left	0.40	0.39	0.39	0.40	0.40	0.40
	Right	0.41	0.41	0.40	0.40	0.41	0.41
<u>Wet</u>	Left	0.30	0.30	0.31	0.31	0.32	0.31
	Right	0.34	0.33	0.33	0.34	0.34	0.34
<u>Oily/Wet</u>	Left	0.31	0.30	0.30	0.30	0.30	0.30
	Right	0.29	0.30	0.31	0.31	0.30	0.30
<b>Coefficient of Friction - Forward Heel Slip</b>							
<u>Dry</u>	Left	0.42	0.42	0.42	0.42	0.42	0.42
	Right	0.41	0.41	0.41	0.42	0.41	0.41
<u>Wet</u>	Left	0.38	0.38	0.39	0.39	0.39	0.39
	Right	0.36	0.37	0.37	0.37	0.38	0.37
<u>Oily/Wet</u>	Left	0.31	0.32	0.33	0.33	0.34	0.33
	Right	0.34	0.33	0.32	0.32	0.32	0.33

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Dry= Dry.

Wet= Section 10.4.2 - Distilled or deionized water shall be applied to the flooring to thoroughly wet the surface

Oily/Wet= Section 10.4.5 - 0.2 ± 0.02 g (approximately 8 drops) of corn oil applied by smearing over a 150 mm by 150 mm area of the flooring and thoroughly wetting the oily surface with distilled or deionized water



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**Cc:** n/a

**PO #:** n/a

**Item:** One (1) pair of footwear

**Identification:** kybun women Tropo sole

**Purpose:** Measuring the Coefficient of Friction for Evaluation of Slip Performance; ASTM F2913-19

Test	Unit of Measure	Specimen Results					Average
<b>Measuring the Coefficient of Friction for Evaluation of Slip Performance</b>							
<b>ASTM F 2913-19</b>							
Temperature: 72°F (50% RH)							
Vertical Force: 500 (± 25) N							
SATRA Quarry							
<b>Coefficient of Friction - Backward Forepart Slip</b>							
<u>Dry</u>	Left	0.44	0.43	0.43	0.44	0.43	0.43
	Right	0.43	0.42	0.42	0.42	0.43	0.42
<u>Wet</u>	Left	0.35	0.34	0.35	0.35	0.36	0.35
	Right	0.38	0.38	0.38	0.38	0.39	0.38
<u>Oily/Wet</u>	Left	0.31	0.30	0.30	0.30	0.30	0.30
	Right	0.32	0.32	0.33	0.32	0.33	0.32
<b>Coefficient of Friction - Forward Heel Slip</b>							
<u>Dry</u>	Left	0.40	0.40	0.41	0.40	0.40	0.40
	Right	0.41	0.41	0.41	0.41	0.41	0.41
<u>Wet</u>	Left	0.40	0.40	0.40	0.40	0.40	0.40
	Right	0.37	0.38	0.39	0.39	0.39	0.38
<u>Oily/Wet</u>	Left	0.33	0.33	0.33	0.33	0.33	0.33
	Right	0.33	0.32	0.32	0.32	0.32	0.32

**ASTM F2913 Reagent Application**

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Dry= Dry.

Wet= Section 10.4.2 - Distilled or deionized water shall be applied to the flooring to thoroughly wet the surface

Oily/Wet= Section 10.4.5 - 0.2 ± 0.02 g (approximately 8 drops) of corn oil applied by smearing over a 150 mm by 150 mm area of the flooring and thoroughly wetting the oily surface with distilled or deionized water