1. Transaltion File named: Wzory 01PU podeszwa drewno PU

The Institute of leather industry

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PROMEDYK

F.H.P. ŚWIAT DZIECKA

Janusz Kowalski ul. Kielecka 76 26-600 RADOM

Your sign: - Our sign: LO-4081-62/15 Your date: 21.05.2015r. Lodz: 02.07.2015r.

Research Report

number of pages: 2 number of copies: 2

Principal:

PROMEDYK F.H.P. ŚWIAT DZIECKA J.Kowalski, Radom

Date of receiving samples for research: 05.06.2015

Date of service delivery: 02.07.2015r.

Type and number of samples for research, samples names:

a series of footwear on wooden soles/PU that consist of patterns: 01APU, 01ABPU, 01SPU, 01BKPU, 01PU, 01BPU:

- sample 01SPU 3 pairs, named in laboratory as 82/2015/1
- sample 01BPU 3 pairs, named in laboratory as 82/2015/2

Way of gathering samples:

delivered by the principal

Type of commissioned research:

coefficient of friction of the bottoms (gait test)

Research findings:

enclosed in table 1, page 2

Research findings a series of footwear on wooden soles consisting of patterns: 01, 01B, 01AB, 01B, KL1, 01S

	Research Type	Unit of measure	Result	Research method
1.	coefficient of friction of the	-	0,17	PB 11/ NO
	bottoms (gait test)		0,17	issued. II z
	- at the approach			03.02.2023
	- when descending			

^{*}the test was carried out on a steel substrate moistened with glycerine, footwear was tested by 3 people with different body weights

^{*} test method equivalent to the technical report

2. Transaltion File named: Wzory 01 podeszwa drewno

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Research Report

number of pages: 2 number of copies: 2

Principal:

PROMEDYK F.H.P. ŚWIAT DZIECKA J.Kowalski, Radom

Date of receiving samples for research: 05.06.2015

Date of service delivery: 02.07.2015r.

Type and number of samples for research, samples names:

a series of footwear on wooden soles that consist of patterns: 01, 01B, 01A, 01AB, 01B, KL1, 01S: - sample 01A – 3 pairs, named in laboratory as 81/2015/1

Way of gathering samples:

delivered by the principal

Type of commissioned research:

coefficient of friction of the bottoms (gait test)

Research findings:

enclosed in table 1, page 2

Research findings a series of footwear on wooden soles consisting of patterns: 01, 01B, 01AB, 01B, KL1, 01S

	Research Type	Unit of measure	Result	Research method
1.	coefficient of friction of the	-	0,17	PB 11/ NO
	bottoms (gait test)		0,17	issued. II z
	- at the approach			03.02.2003
	- when descending			

^{*}the test was carried out on a steel substrate moistened with glycerine, footwear was tested by 3 people with different body weights

^{*} test method equivalent to the technical report

3. Transaltion File named: Wzory 03 Męskie A06

The Institute of leather industry

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PROMEDYK

F.H.P. ŚWIAT DZIECKA

Janusz Kowalski ul. Kielecka 76 26-600 RADOM

Your sign: - **Our sign**: LO-4081-54/15

Your date: 29.04.2015r. **Lodz**: 02.07.2015r.

Research Report

number of pages: 2 number of copies: 2

Principal:

PROMEDYK F.H.P. ŚWIAT DZIECKA J.Kowalski, Radom

Date of receiving samples for research: 05.06.2015

Date of service delivery: 02.07.2015r.

Type and number of samples for research, samples names:

a series of male footwear on soles A06 that consist of patterns: 03ABM, 03A/3, 03BM, 03CBM, 03LGM, 03LM, 03/3M, 03SAM, 03SAM, 03AM:

- sample 03LM 3 pairs, (delivered 30.04.2015) named in laboratory as 66/2015/1,
- sample 03AMB 3 pairs, (delivered 05.06.2015) named in laboratory as 66/2015/2,
- sample 03A 3 pairs, (delivered 05.06.2015) named in laboratory as 66/2015/3,
- sample 03CBM 3 pairs, (delivered 05.06.2015) named in laboratory as 66/2015/4,
- sample 03/3M 3 pairs, (delivered 05.06.2015) named in laboratory as 66/2015/5,
- sample 03SAM 3 pairs, (delivered 05.06.2015) named in laboratory as 66/2015/6,
- sample 03SM 3 pairs, (delivered 05.06.2015) named in laboratory as 66/2015/7,
- sample 03AM 3 pairs, (delivered 05.06.2015) named in laboratory as 66/2015/8.

Way of gathering samples:

delivered by the principal

Type of commissioned research:

specific ergonomic features, energy absorption in the heel part, sole replacement, coefficient of friction of the footwear soles (gait test), rigidity and resistance of the bottoms to bending

Research findings:

enclosed in table 1, page s 2 and 3

Research findings a series of footwear on wooden soles consisting of patterns: 01, 01B, 01AB, 01B, KL1, 01S

	Research Type	Unit of measure	Result	Research
_				method
1.	specific ergonomic features	-	positive	PN-EN ISO
				20344:2012 p.
_			21.2	5.1.
2.	energy absorption in the heel	J	31,8	PN-EN ISO
	part			20344:2012 p.
				5.14
3.	Soles size	mm	11,5	PN-EN ISO
	Sample 03LM		3,0	20344:2012 p.
				8.1.2
4.	coefficient of friction of the	-		PB 11/ NO
	bottoms (gait test)			issued. II z
				03.02.2003
	Sample 03LM			
	- at the approach		0,19	
	- when descending		0,18	
	Sample 03ABM			
	- at the approach		0,18	
	- when descending		0,18	
	Sample 03A			
	- at the approach		0,17	
	- when descending		0,16	
			,	
	Sample 03SAM			
	- at the approach		0,19	
	- when descending		0,18	
	Sample 03SM		0,19	
	- at the approach		0,18	
	- when descending			
	Sample 03AM		0,19	
	- at the approach		0,19	
	- when descending			
			1	l

5.	rigidity of the bottoms		78	PN-EN ISO
	Sample 03LM			20344:2012 p.
				8.4.2
6.	resistance of the bottoms to	Bends amount	30 000	PN-EN ISO
	bending (23+2) Celsius degrees			20344:2012 p.
	Sample 03LM			8.4.2

^{*}the test was carried out on a steel substrate moistened with glycerine, footwear was tested by 3 people with different body weights

 $[\]ensuremath{^{*}}$ test method equivalent to the technical report ISO TR 11220:1993

^{*} tension has not been raised (increase in the voltage length 0 mm)

4. Transaltion File named: Wzory 03 Podeszwa SDI

The Institute of leather industry

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Your sign: - **Our sign**: LO-4081-54/15

Your date: 29.04.2015r. **Lodz**: 02.07.2015r.

Research Report

number of pages: 3 number of copies: 2

Principal:

PROMEDYK F.H.P. ŚWIAT DZIECKA J.Kowalski, Radom

Date of receiving samples for research: 30.04.2015 and 05.06.2015

Date of service delivery: 03.07.2015r.

Type and number of samples for research, samples names:

a series of footwear on soles SDI that consist of patterns: 03, 03A, 03B, 03AB, 03/3, 03/S, 03SA, 03LA, 03LG, 03B/R, 03CB, 03C:

- sample 03LA-3 pairs, (delivered 30.04.2015) named in laboratory as 65/2015/1,
- sample 03AB 3 pairs, (delivered 05.06.2015) named in laboratory as 65/2015/2,
- sample 03A 3 pairs, (delivered 05.06.2015) named in laboratory as 65/2015/3,
- sample 03CB 3 pairs, (delivered 05.06.2015) named in laboratory as 65/2015/4,
- sample 03/3 3 pairs, (delivered 05.06.2015) named in laboratory as 65/2015/5,
- sample 03/3A 3 pairs, (delivered 05.06.2015) named in laboratory as 65/2015/6,
- sample 03S 3 pairs, (delivered 05.06.2015) named in laboratory as 65/2015/7,
- sample 03SA 3 pairs, (delivered 05.06.2015) named in laboratory as 65/2015/8.

Way of gathering samples:

delivered by the principal

Type of commissioned research:

specific ergonomic features, energy absorption in the heel part, sole size, rigidity and resistance of the bottoms to bending, coefficient of friction of the footwear soles (gait test)

Research findings:

enclosed in table 1, page s 2 and 3

Research findings a series of footwear on wooden soles consisting of patterns: 03, 03A, 03B, 03AB, 03/3, 03/S, 03SA, 03LA, 03LG, 03B/R, 03CB, 03C.

	Research Type	Unit of measure	Result	Research
				method
1.	specific ergonomic features	-	positive	PN-EN ISO
	Sample 03LA			20344:2012 p.
			<u> </u>	5.1.
2.	energy absorption in the heel	J	37,1	PN-EN ISO
	part			20344:2012 p.
	Sample 03LA			5.14
3.	Soles size	mm	13,5	PN-EN ISO
	Sample 03LA		3,0	20344:2012 p.
				8.1.2
4.	coefficient of friction of the	-		PB 11/ NO
	bottoms (gait test)			issued. II z
				03.02.2003
	Sample 03LA			
	- at the approach		0,17	
	- when descending		0,16	
	Sample 03AB			
	- at the approach		0,20	
	- when descending		0,19	
	Sample 03A			
	- at the approach		0,19	
	- when descending		0,18	
	Sample 03CB			
	- at the approach		0,20	
	- when descending		0,19	
	Sample 03/3			
	- at the approach		0,19	
	- when descending		0,19	
	Sample 03/3A		0,17	
	- at the approach		0,18	
	- when descending			

	Sample 03S - at the approach - when descending		0,19 0,19	
	Sample 03SA - at the approach - when descending		0,18 0,18	
5.	rigidity of the bottoms Sample 03LA		78	PN-EN ISO 20344:2012 p. 8.4.1
6.	resistance of the bottoms to bending (23+2) Celsius degrees Sample 03LA	Bends amount	30 000	PN-EN ISO 20344:2012 p. 8.4.2

^{*}the test was carried out on a steel substrate moistened with glycerine, footwear was tested by 3 people with different body weights

^{*} test method equivalent to the technical report ISO TR 11220:1993

^{*} tension has not been raised (increase in the voltage length 0 mm)

5. Transaltion File named: Wzory 03 Podeszwa SDII

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Your sign: - Our sign: LO-4081-54/15 Your date: 29.04.2015r. Lodz: 02.07.2015r.

Research Report

number of pages: 3 number of copies: 2

Principal:

PROMEDYK F.H.P. ŚWIAT DZIECKA J.Kowalski, Radom

Date of receiving samples for research: 30.04.2015 and 05.06.2015

Date of service delivery: 03.07.2015r.

Type and number of samples for research, samples names:

a series of footwear on soles SDII PROMEDYK that consist of patterns: 03W, 03AW, 03BW, 03ABW, 03LAW, 03/3W, 03A/3W, 03PW, 03SAW, 03LPW:

- sample 03LAW 3 pairs, (delivered 30.04.2015) named in laboratory as 67/2015/1,
- sample 03ABW 3 pairs, (delivered 05.06.2015) named in laboratory as 67/2015/2,
- sample 03A/3W– 3 pairs, (delivered 05.06.2015) named in laboratory as 67/2015/3,
- sample 03BW 3 pairs, (delivered 05.06.2015) named in laboratory as 67/2015/4,
- sample 03LPW 3 pairs, (delivered 05.06.2015) named in laboratory as 67/2015/5,
- sample 03/3W 3 pairs, (delivered 05.06.2015) named in laboratory as 67/2015/6,
- sample 03SAW 3 pairs, (delivered 05.06.2015) named in laboratory as 67/2015/7,
- sample 03SW 3 pairs, (delivered 05.06.2015) named in laboratory as 67/2015/8.

Way of gathering samples:

delivered by the principal

Type of commissioned research:

specific ergonomic features, energy absorption in the heel part, sole size, rigidity and resistance of the bottoms to bending, coefficient of friction of the footwear soles (gait test)

Research findings:

enclosed in table 1, page s 2 and 3

Research findings a series of footwear on wooden soles consisting of patterns: 03W, 03AW, 03BW, 03ABW, 03IAW, 03/3W, 03A/3W, 03PW, 03SAW, 03LPW:

	Research Type	Unit of measure	Result	Research
1			n a sitii va	method
1.	specific ergonomic features Sample 03LAW	-	positive	PN-EN ISO 20344:2012 p.
	Sample OSLAW			5.1.
2.	energy absorption in the heel	J	37,1	PN-EN ISO
	part		37,12	20344:2012 p.
	Sample 03LAW			5.14
	·			
3.	Soles size	mm	13,5	PN-EN ISO
	Sample 03LAW		3,0	20344:2012 p.
				8.1.2
4.	coefficient of friction of the	-		PB 11/ NO
	bottoms (gait test)			issued. II z
	Sample 03LAW			03.02.2003
	Sample 03LAW - at the approach		0,20	
	- when descending		0,20	
	When descending		0,13	
	Sample 03ABW			
	- at the approach		0,18	
	- when descending		0,18	
	Sample 03A/3W			
	- at the approach		0,18	
	- when descending		0,17	
	Sample 03BW			
	- at the approach		0,18	
	- when descending		0,17	
	Sample 03LPW			
	- at the approach		0,18	
	- when descending		0,18	
	Sample 03/3W		0,18	
	- at the approach		0,17	
	- when descending			

	Sample 03SAW - at the approach - when descending		0,19 0,19	
5.	rigidity of the bottoms Sample 03LAW		73	PN-EN ISO 20344:2012 p. 8.4.1
6.	resistance of the bottoms to bending (23+2) Celsius degrees Sample 03LAW	Bends amount	30 000	PN-EN ISO 20344:2012 p. 8.4.2

^{*}the test was carried out on a steel substrate moistened with glycerine, footwear was tested by 3 people with different body weights

^{*} test method equivalent to the technical report ISO TR 11220:1993

^{*} tension has not been raised (increase in the voltage length 0 mm)