

Firm: Pusha Safety Ind  
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Tehran  
Iran  
1588663911

For the attention of: Amir E Zargari

# Technical Report

Subject: Testing of gloves identified as “PushaPetro” in accordance with EN 388: 2003 and EN 420: 2003 + A1: 2009  
Your ref: Invoice # 2012096  
Our ref: SPC0201519/1207/1  
Date: 8 June, 2012

## Conditions of Issue:

This report may be forwarded to other parties provided that it is not changed in any way. It must not be published, for example by including it in advertisements, without the prior, written permission of SATRA.

Results given in this report refer only to the samples submitted for analysis and tested by SATRA. Comments are for guidance only.

Tests marked † (such as the 2009 amendment to EN 420: 2003) fall outside the UKAS Accreditation Schedule for SATRA. All interpretations of results of such tests and the comments based upon them are outside the scope of UKAS accreditation and are based on current SATRA knowledge.

**A satisfactory test report in no way implies that the product tested is approved by SATRA and no warranty is given as to the performance of the product tested. SATRA shall not be liable for any subsequent loss or damage incurred by the customer as a result of information supplied in the report.**

Report signed by: Adam Mortiboys  
Position: PPE Technologist  
Department: Safety Product Centre

## WORK REQUESTED

Samples of gloves, identified as “PushaPetro”, were received by SATRA on the 14<sup>th</sup> March 2012, for testing in accordance with EN 420: 2003 + A1: 2009 & EN 388: 2003.

## CONCLUSIONS

SAMPLE REFERENCE	STANDARD	CLAUSE / PROPERTY	PASS / FAIL
PushaPetro	EN 420: 2003 + A1: 2009	5.1 Length and fit	Pass
		5.2 Dexterity	Level 5
	EN 388: 2003	6.1 Abrasion resistance	Level 4
		6.2 Blade cut resistance	Level 1
		6.3 Tear resistance	Level 1
		6.4 Puncture resistance	Level 1

## TESTING

Testing was carried out in accordance with EN 420: 2003 + A1: 2009<sup>†</sup> & EN 388: 2003 between the 22<sup>nd</sup> and 23<sup>rd</sup> May 2012

Unless otherwise stated, samples were conditioned for at least 24 hours in a controlled environment maintained at (23 ± 2) °C and (50 ± 5) % relative humidity. Testing was carried out within the same environment

Figure 1 – Gloves identified as “PushaPetro”





## REQUIREMENTS

Table 1 – Levels of performance for EN 388: 2003

Performance Level	1	2	3	4	5
6.1 Abrasion resistance (cycles to failure)	100	500	2000	8000	N/A
6.2 Blade cut resistance (minimum cut resistance index)	1.2	2.5	5.0	10	20
6.3 Tear resistance (lowest peak force – newtons)	10	25	50	75	N/A
6.4 Puncture resistance (lowest peak force – newtons)	20	60	100	150	N/A

Table 2 – Requirements for EN 420: 2003 + A1: 2009† Clause 5 Size and Dexterity

Glove size	6	7	8	9	10	11
Minimum length / mm	220	230	240	250	260	270

Performance level	1	2	3	4	5
Diameter of dexterity pin /mm	11.0	9.5	8.0	6.5	5.0

## TEST RESULTS

Table 3 – Testing of gloves identified as “PushaPetro” in accordance with EN 420: 2003 + A1: 2009†

EN 420: 2003 +A1: 2009 CLAUSE / TEST	EN 420: 2003 + A1: 2009 REQUIREMENT	TEST RESULTS	UoM (See note 1)	PASS / FAIL
5.1 Glove length	See table 2	Size 8 Length / mm L: 397 , R: 387	± 0.3 mm	Pass
5.1 Comfort and fit	See table 2	Size: 8 Wearer hand size Left: L:8.5, C:7.0 Right: L:9.0 , C:7.0 Comments on fit: Slightly long in the fingers	N/A	Pass
5.2 Dexterity	See table 2	Size 8 Minimum pin diameter 5 mm	N/A	Level 5

Table 4 – Testing of gloves identified as “PushaPetro” in accordance with EN 388: 2003

EN 388: 2003 CLAUSE / TEST	EN 388: 2003 REQUIREMENT	TEST RESULTS	UoM (See note 1)	PASS / FAIL
6.1 Abrasion resistance	See table 1	Sample Failure between / cycles 1 >8800 2 >8800 3 >8800 4 >8800 <i>Saint-Gobain A700 Abrasive paper used Abrasion machine compliant with EN 388: 1994 Clause 6.1.3</i>	± 10 % See note 2	Level 4
6.2 Blade cut resistance	See table 1	Sample Cut index Left 1.49, 1.35, 1.39, 1.40, 1.41 Mean = 1.41 Right 1.33, 1.34, 1.39, 1.38, 1.34 Mean = 1.36 <i>Nominal width of blade is 0.3mm</i>	± 0.08	Level 1
6.3 Tear resistance	See table 1	Sample Peak force / N 1 28.6 2 30.4 3 24.2 4 66.4	± 2.1 N	Level 1
6.4 Puncture resistance	See table 1	Sample Peak force / N 1 43.3 2 49.2 3 46.6 4 43.2	± 2.1 N	Level 1

## ADDITIONAL INFORMATION / NOTES

Note 1 – ‘UoM’ denotes estimated Uncertainty of Measurement for stated test results. This uncertainty value is based on a standard uncertainty multiplied by a coverage factor  $k = 2$ , which provides for a confidence level of approximately 95%

Note 2 – Estimated uncertainty of measurement applied at point of test (e.g. to applied force or to tolerance limits) to ensure product meets requirements of the standard

\*\*\*\*\* END OF REPORT \*\*\*\*\*



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Issue Date: 1st October 2009