

REPORT No 11657

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EN 388

PROTECTIVE GLOVES AGAINST MECHANICAL RISKS

Program: SQ-5023.V5

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1. FOREWORD

This report summarizes the results of the **SQ-5023.V5** proficiency testing program on the determination of level of performance of protective gloves. This program is conducted in a bilateral format, following the A.3.3 classification of the ISO 17043 standard ("Split-sample testing schemes").

South Quality conducted the testing program in January 2026 with the aim of assessing the laboratory's ability to competently perform the designated tests.

2. ORGANIZATION

Program Coordinator: Lic. Esther Casas
 Assistant Technician: Berenice Ferrel
 Statistic: Lic. Manuel Tozaki
 Supervision: Eng. Emiliano Medina

3. OBJECTIVE

The objective of this proficiency testing program is to verify the performance of the samples regarding cut resistance, using the following standard:

Standard
EN 388: 2016 + A1: 2018 (Clause 6.2 - Blade cut resistance)

To verify this, batches of protective gloves have been selected.

Participants in this program have not been previously informed about the expected behavior of the samples they receive.

4. PARTICIPANT

Company: **MNA LABORATUVARLARI SANAYI TICARET LTD STI**
 Laboratory: MNA LABORATUVARLARI SANAYI TICARET LTD STI
 Country: Türkiye
 Client ID: S360
 Contact person: Volkan Akin
 Laboratory Manager
volkanakin@mnalabs.com

5. HOMOGENEITY

Several batches were prepared identically by the staff at South Quality.

Subsequently, a homogeneity study was conducted with an ISO 17025 accredited laboratory.

The control process followed ISO 33405: 2024, clauses 7.4.1.1 / 7.4.1.2. Stratified random sampling was applied, and samples were selected using random number generation software.

The results of this test are presented below:

Size of each batch: **50 pairs**

Tested samples from each batch: **15 pairs**

DETERMINATION	HOMOGENEITY OF RESULTS IN THE ANALYZED SAMPLES		
	BATCH: LPP3208	BATCH: LPP3209	BATCH: LPP3210
Blade cut resistance	NO	YES	YES

DETERMINATION	HOMOGENEITY OF RESULTS IN THE ANALYZED SAMPLES		
	BATCH: LPP3313	BATCH: LPP3314	BATCH: LPP3315
Blade cut resistance	NO	YES	YES

Samples for this program are taken from the selected batches identified as **LPP3210** and **LPP3314**.

For the indicated batches, the values determined in the homogeneity study are utilized as the assigned values.

The analysis of the test data indicated that the selected samples exhibited sufficient homogeneity for the program. Therefore, the results of participants identified as outliers cannot be attributed to sample variability.

6. SAMPLE INFORMATION

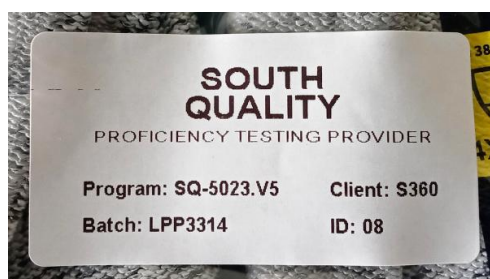
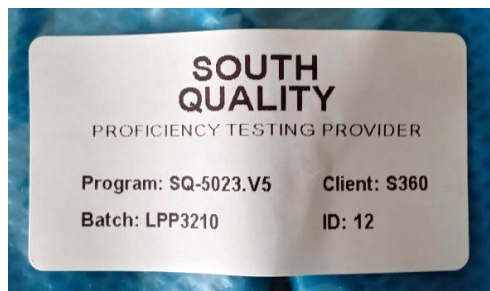
The following samples were sent for testing:

Batch:	LPP3210
Sample ID:	12
Characteristics:	Protective gloves - Trademark: N/A (BLUE) - 1 pair

Batch:	LPP3314
Sample ID:	08
Characteristics:	Protective gloves - Trademark: STEELPRO (GREY) - 1 pair

7. IMAGES

SAMPLES



8. ASSIGNED VALUES

BATCH	RESULTS	
	INDEX	SD
LPP3210	1.73	0.35
LPP3314	8.85	0.56

9. PARTICIPANT RESULTS (SEE APPENDIX)

CODE	RESULTS - INDEX (AVG)
LPP3210-12	1.65
LPP3314-08	8.50

10. STATISTICS

The results must be treated as quantitative.

According B.3.1.3 of ISO 17043 the appropriate technique is to compare participant results with the assigned values. The results can be compare using **z score**.

$$z = \frac{x - X}{\hat{\sigma}}$$

x is the participant's result

X is the assigned value

$\hat{\sigma}$ is the standard deviation

The performance evaluation of each sample is carried out with the following criteria:

$|z| \leq 2.0$ indicates "satisfactory" performance and generates no signal;

$2.0 < |z| < 3.0$ indicates "questionable" performance and generates a warning signal;

$|z| \geq 3.0$ indicates "unsatisfactory" performance and generates an action signal;

11. EVALUATION OF PERFORMANCE

BATCH	RESULTS - INDEX		z score	PERFORMANCE RESULT
	PARTICIPANT RESULT	ASSIGNED VALUE		
LPP3210	1.65	1.73	0.23	SATISFACTORY
LPP3314	8.50	8.85	0.62	SATISFACTORY

12. CONCLUSIONS

The overall performance of this **SQ-5023.V5** program from the participant laboratory **MNA LABORATUVARLARI SANAYI TICARET LTD STI**, is **SUFFICIENT** based on expected results.

The criteria used for evaluating the overall performance are as follows:

- **SUFFICIENT** performance: No unsatisfactory/questionable results were obtained.
- **ALMOST SUFFICIENT** performance: No unsatisfactory results were obtained, but one questionable result was found.
- **INSUFFICIENT** performance: An unsatisfactory result was obtained or two questionable results were obtained.

APPENDIX

PARTICIPANT RESULTS

(Results form)



INSTRUCTIONS

PROGRAM:	Protective gloves against mechanical risks
CODE:	SQ-5023
VERSION:	5
STANDARD:	EN 388
COORDINATOR:	Lic. Esther Casas (ecasas@ptsouthquality.com)

1 - General

This document serves as a guide for managing the results of the **SQ-5023.V5** program.

2 - Standard

EN 388: 2016 + A1: 2018

3 - Tests involved

TEST
Determination of level of performance of protective gloves - Blade cut resistance (Clause 6.2) -

4 - Samples

CODE	SAMPLE	QUANTITY
LPP3210-12	Protective gloves Trademark: N/A (BLUE)	1
LPP3314-08	Protective gloves Trademark: STEELPRO (GREY)	1

5 - Notes

- a) Being a bilateral program, there is no deadline for submitting results.
- b) The participant must submit the results using the usual report employed by their laboratory.
- c) The samples are to be handled as routine lab samples, with all testing, documentation, and reporting adhering to EN 388.
- d) Samples must be retained until the end of the program, which concludes with the submission of the final report.
- e) To review the results, test images would be appreciated. Images can be attached at the end of this document or sent by email.

RESULTS

LPP3210-12

Protective gloves Trademark: N/A (BLUE)

Sample	Results (index) LPP3210-12
1.Sample	1,7
2.Sample	1,6

LPP3314-08

Protective gloves Trademark: STEELPRO (GREY)

Analiz	Numune Sonuçları (indeks) LPP3314-08
1.Numune	8,1
2.Numune	8,9

----- END OF REPORT -----