Testing of Protective Clothing Material

Test item(s): **Seam of woven fabric with laminated backing, TG 501**

Type: **Protective clothing – Protection against rain**

Customer: **PSS Pfeiffer Sicherheitssysteme GmbH**
Albstrasse 10
72145 Hirrlingen
Germany

Applied method(s): **EN 343:2019**

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Testing Engineer

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Testing Engineer

1. Description and identifying of test item

Following sample was submitted and identified by the customer as:
Tested item(s): Seam of woven fabric with laminated backing, TG 501

Material description: 100 % PES Oxford with PU Laminated backing, 210 g/m^2

Following feature was observed by a testing engineer of SGS Fimko:
Seam description: Seam was closed with chain-, topstitch and taped

2. Scope of testing

Testing date(s): 2024-09-20
Tests were performed at the PPE laboratory of SGS Fimko Oy under accreditation scope.

Following tests were requested by the customer:

Requirement		Test method
Resistance to water penetration, seam - as new	EN 343:2019, 4.2	EN 20811:1992
Seam strength - as new	EN 343:2019, 4.8	EN ISO 13935-2:2014

2.1 Sampling and conditioning

Receiving date(s): 2024-09-18

Condition: Intact

Sampling method: The customer supplied seam samples.

Conditioning: Samples were conditioned at least 24 hours in an atmosphere having a temperature of (20 ± 2) °C and a relative humidity of (65 ± 5) % before testing.

3. Test results

3.1 Resistance to water penetration, seam

Water temperature: 20°C
Water pressure applied from: below
Increase of water pressure: 10 cmH_2O / min
Tested side of the sample: face

Seam as new	Result Wp [Pa]
1	> 13 000 *
2	> 13 000 *
3	> 13 000 *
4	> 13 000 *
Lowest	> 13 000

* Seam sample withstands the requested requirement limit pressure (13 000 Pa). Test was stopped.

3.2 Seam strength

Type of testing machine: Lloyd, LRX Plus, 1 kN
Speed of the drawing jaw: (50 ± 10) mm/min
Gauge length: (100 ± 1) mm
Jaws: Width 25 mm

Seam as new	Maximum strength [N]
1	280*
2	220*
3	290*
4	290*
Mean	270

* Seam was stronger than material, fabric frayed

4. Summary

Test	Acceptance criteria according to	Comments
Resistance to water penetration, seam - as new	EN 343:2019, 4.2 *Seams before pre-treatment* Class 1 Wp ≥ 8 000 Pa Class 2 Wp ≥ 8 000 Pa Class 3 Wp ≥ 13 000 Pa *Seams after pre-treatment by cleaning* Class 4 Wp ≥ 20 000 Pa	Seam ***meets the requirement*** **Class 3**
Seam strength - as new	EN 343:2019, 4.8 ≥ 200 N	Seam ***meets the requirement***

The statement of conformity in this test report is only based on measured values by the laboratory and does not take their uncertainties into consideration. The relevant uncertainty value is obtainable upon request from the laboratory.

End of test report