

Letter of Commission

No.: -
Date: 18 March 2016
Date of arrival: 18 March 2016

Test Report

No.: 3/115-2016 (E)
Date: 8 April 2016

Your Executive: Mr. Szilágyi

Our Executive: Mrs. Gábrriel

TEST REPORT

Customer: TEXTURA Kereskedelmi Kft.
Address: H-1147 Budapest, Ilosvai S. P. u. 10-12.

Tested sample: Woven fabric for work clothing (blue)
Designation: DURAMAX
Composition: 65% polyester, 35% cotton
Mass per unit area: 245 g/m²

Annexes: Annex 1: Test results
Annex 2: Sample for identification

Date of arrival of sample: 18 March 2016
Date of testing: 21 March 2016 – 11 April 2016

Tests performed:

1. Raw material composition [MSZ 13560-2:1989 and Hungarian Order 25/2005 (IV. 29.) GKM Annex 5, 6 (eqv. EU directives)].
2. Mass per unit area [MSZ EN 12127:1999].
3. Number of threads per unit length [MSZ EN 1049-2:1999].
Method: A. Measuring distance: 5 cm.
4. Weave of fabric [ISO 7211-1:1984].
5. Dimensional stability in washing and drying [MSZ EN ISO 5077:2008].
Number of test specimens: 2. Number of washing and drying cycles: 5.
Detergent: ECE 98. Ballast: polyester fabric.
Washing machine: Wascator FOM 71 CLS (Type A2).
Washing, drying: MSZ EN ISO 6330:2001+ MSZ EN ISO 6330:2000/A1:2009.
Washing: Procedure 2A (60°C). Drying: Procedure E (tumble dry, low temp.).
6. Tensile test [MSZ EN ISO 13934-1:2000].
Gauge length: 200 mm. Rate of extension: 100 mm/min. Pretension: 5 N.
Type of device used: INSTRON 3369.
Number of test specimens: 5 (warp direction) + 5 (weft direction).

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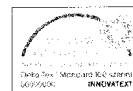
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NAT-1-1366-2012



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7. Tear resistance [MSZ EN ISO 13937-2:2000].
Method of calculation: by electronic device. Type of device used: INSTRON 3369.
Number of test specimens: 5 (warp direction) + 5 (weft direction).
8. Seam slippage [MSZ EN ISO 13936-2:2004].
Tensile load: 120 N. Type of device used: INSTRON 3369.
Number of test specimens: 5 (warp direction) + 5 (weft direction).
9. Abrasion resistance [MSZ EN ISO 12947-2:2000].
Pressure: 12 kPa. Type of device used: Martindale 403 (James H. Heal).
10. Abrasion resistance [MSZ 3496:2011, method A1].
Abrasive material: abrasive paper (P600). Load: 4,45 N.
Type of device used: Schiefer abrasion tester (Frazier Ltd.).
11. Abrasion resistance [MSZ 3496:2011, method A2].
Abrasive material: woven fabric under test. Load: 17,8 N.
Type of device used: Schiefer abrasion tester (Frazier Ltd.).
12. Fabric propensity to surface fuzzing and to pilling [MSZ EN ISO 12945-2:2001].
Abrasive material: woven fabric under test. Load: 415 g.
Number of test specimens: 3. Number of observers: 3.
Type of device used: Martindale 403 (James H. Heal).
13. Colour fastness to artificial light [MSZ EN ISO 105-B02:2001+ MSZ EN ISO 105-B02:1999/A1:2002]. Type of device used: Xenotest 150 S+. Method used: 2.
Reference materials: Blue Wool References developed in Europe (1 to 8).
Exposure conditions: normal conditions (temperate zone).
14. Colour fastness to washing [MSZ EN 20105-C03:1995, 60°C].
15. Colour fastness to perspiration [MSZ EN ISO 105-E04:2009].
16. Colour fastness to dry cleaning [MSZ EN ISO 105-D01:2010].
17. Colour fastness to rubbing [MSZ EN ISO 105-X12:2003].
18. pH of aqueous extract [MSZ EN ISO 3071:2006].
Type of solution used: KCl solution.

- Notes:
- The test result relate only to the tested sample.
 - This Test Report (include Annexes) contains 4 pages, which can only be copied in full unless the written permission of the testing laboratory is obtained.
 - The testing laboratory is accredited by NAT. Accreditation number: NAT-1-1366/2012.
 - Validity of issued test report is proven by dry seal of INNOVATEXT Zrt. seen of pages of it.

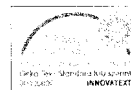
Agnes Kovacs
Agnes Kovacs
Head of Testing Department



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Annex 1

TEST RESULTS

Tested parameters	Test results
Raw material composition	64,0% polyester 36,0% cotton
Mass per unit area (g/m ²)	252,4
Number of threads per unit length (per 10cm) warp / weft	343 / 202
Weave	Twill, 2/1 "S"
Dimensional stability in washing and drying, 60°C (%) 1x washed warp / weft 5x washed warp / weft	+0,2 / -0,4 -0,4 / -0,3
Breaking strength (N) warp / weft direction Elongation (%) warp / weft direction	1684 / 895 23,0 / 19,1
Tear resistance (N) -warp direction (across weft) -weft direction (across warp)	44,9 53,5
Seam slippage (mm) warp slippage / weft slippage	2,4 / 2,0
Abrasion resistance (MSZ EN ISO 12947-2) (rubs)	53330
Abrasion resistance (MSZ 3496:2011, A1) (revolutions)	1972
Abrasion resistance (MSZ 3496:2011, A2) (revolutions)	>22500
Propensity to surface fuzzing and to pilling (grade) Rubs: 125 / 500 / 1000 / 2000 / 5000 / 7000	4-5 / 4-5 / 4 / 4 / 3-4 / 3
Colour fastness (degree) - to light - to washing - colour change - staining (cotton/polyester) - to perspiration - acid - colour change - staining (cotton/polyester) - alkaline - colour change - staining (cotton/polyester) - to dry cleaning - colour change - staining (cotton/polyester) - to rubbing (dry/wet)	6 4-5 4-5 / 4-5 4-5 4-5 / 4-5 4-5 4-5 / 4-5 5 4-5 / 4-5 4-5 / 3
pH of aqueous extract	7,8

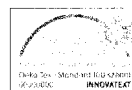
Bodnogyi Rita Gicella
Ágnes Kovács
Head of Testing Department U



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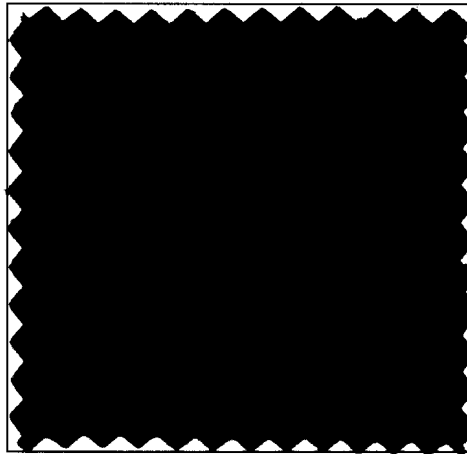
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Annex 2

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Sample for identification



Bodnagicsi Pál Gizella
Ágnes Kovács
Head of Testing Department



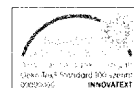
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