

**MESSRS:
PUGI R.G. S.R.L.
VIALE MARCONI 50/15
59100 PRATO (PO)
ITALIA**

REPORT NR. 1804232-001
REPORT DATE 29/11/2018
ACCEPTANCE DATE 20/11/2018
START TEST DATE 20/11/2018
END TEST DATE 29/11/2018
SAMPLING BY CUSTOMER

TEST REPORT

SAMPLE DESCRIPTION MIRAGE COL. 643

THE REPORT IS MADE BY THE FOLLOWING TESTS:

TEST	METHOD	ACCREDIA
3015001 Colour fastness - Artificial light	UNI EN ISO 105 B02:2014	
3008011 Colour fastness - Crocking dry and wet A	UNI EN ISO 105 X12:2016	
2028011 Abrasion resistance	UNI EN ISO 12947-1:2000 + UNI EN ISO 12947-2:2017	
2015031 Tensile strength - Grab method B	UNI EN ISO 13934-2:2014	
2032054 Fabric propensity to surface fuzzing and to pilling - Martindale method - Upholstery (Express)	UNI EN ISO 12945-2:2002	
2025023 Scorrimento dei fili in corrispondenza delle cuciture - Metodo del carico fisso - Arredamento (Express)	UNI EN ISO 13936-2:2004	

Technical Manager

Dott.ssa Valentina Guidotti



Managing Director

Patrizia Rosati



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NOTES ANALYTICAL TESTS

- 3015001 Colour fastness - Artificial light** **UNI EN ISO 105 B02:2014**
Apparatus: Xenotester; Test conditions: Normal; Evaluated for comparison with Grey Scale for colour change (ISO 105 A02) and Blue Scale according with 105 ISO B02 with values from 1 to 8.
Method: 3
- 3008011 Colour fastness - Crocking dry and wet A** **UNI EN ISO 105 X12:2016**
Evaluation with grey scale for colour staining according with ISO 150 A03; Percentage of absorption of the test cloth: 95-100%; Strength burden of rubbing (circular ankle): 9N; The specimens have been acclimatized in atmosphere to 20±2°C and 65±4%RH in compliance with norm UNI EN ISO 139.
- 2028011 Abrasion resistance** **UNI EN ISO 12947-1:2000 + UNI EN ISO 12947-2:2017**
The specimens have been acclimatized in atmosphere to 20±2°C and 65±4%RH in compliance with norm UNI EN ISO 139; Instrument: Martindale; CT : it shows the number of cycles at which a change in the aspect is observed and evaluated on the Grey scale for change of tone.
The individual result is the number of rubs prior to the actual End Point of the specimen.
The significant result is the lowest between the above results.
Significant changes:
Ct 6.000: 5
Ct 16.000: 4-5 fuzzing
Ct 20.000: 4
Ct 60.000: 3-4 pilling and fuzzing
- 2015031 Tensile strength - Grab method B** **UNI EN ISO 13934-2:2014**
The specimens have been acclimatized in atmosphere to 20±2°C and 65±4%RH in compliance with norm UNI EN ISO 139; Apparatus: Dynamometer CRE; Calculations performed by software processing internal program management equipment.
- 2032054 Fabric propensity to surface fuzzing and to pilling - Martindale method - Upholstery (Express)** **UNI EN ISO 12945-2:2002**
The specimens have been conditioned in atmosphere to 20±2°C and 65±4%RH in compliance with norm UNI EN ISO 139; Assessment with fotografic standard and/or following scheme: 1 - Dense surface fuzzing and/or severe pilling. Pills of varying size and density covering the whole of the specimen surface; 2 - Distinct surface fuzzing and/or distinct pilling. Pills of varying size and density covering a large proportion of the specimen surface; 3 - Moderate surface fuzzing and/or moderate pilling. Pills of varying size and density partially covering the specimen surface; 4 - Slight surface fuzzing and/or partially formed pills; 5 - No changes.
The test was conducted on a lower number of specimens as requested by the customer, is therefore indicative.
Sample type: orthogonal fabric - Use furniture
Applied load: 415±2g

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- **2025023 Scorrimento dei fili in corrispondenza delle cuciture - Metodo del carico fisso - Arredamento (Express) UNI EN ISO 13936-2:2004**

The specimens have been acclimatized in atmosphere to $20\pm 2^{\circ}\text{C}$ and $65\pm 4\%\text{RH}$ in compliance with norm UNI EN ISO 139; Apparatus: Dynamometer CRE - Sewing Machine: Singer Mod. 1507; Threads: 74 ± 5 tex; Stitches per cm : 3.2 ± 0.2 ; Needle size: 110; Seam type: 301 SS.

The test was conducted on a lower number of specimens as requested by the customer, is therefore indicative.

GENERAL NOTES

Unrepeatable tests to exhaustion test material.

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Tests	M.U.	Results	Method
3015001 Colour fastness - Artificial light			UNI EN ISO 105 B02:2014
Colour change		5	
3008011 Colour fastness - Crocking dry and wet A			UNI EN ISO 105 X12:2016
Warp - Dry		4-5	
Warp - Wet		4-5	
Weft - Dry		4-5	
Weft - Wet		4-5	
2028011 Abrasion resistance			UNI EN ISO 12947-1:2000 + UNI EN ISO 12947-2:2017
Kind of item		WOVEN FABRIC	
Observed End-Point		BREAKING OF TWO ELEMENTS (WARPS AND/OR WEFTS)	
Applied load	kPa	12	
Pretreatment		-	
Number of specimens		3	
Result prior to the End Point - Specimen 1	Rubs	100000	
Result prior to the End Point - Specimen 2	Rubs	100000	
Result prior to the End Point - Specimen 3	Rubs	100000	
Significant result	Rubs	100000	
2015031 Tensile strength - Grab method B			UNI EN ISO 13934-2:2014
Warp - Test speed	mm/min	50	
Warp - Number of specimens		5	
Warp - Rejected specimens		0	
Warp - Average of breaking load	N	1500	
Weft - Test speed	mm/min	50	
Weft - Number of specimens		5	
Weft - Rejected specimens		0	
Weft - Average of breaking load	N	1100	
2032054 Fabric propensity to surface fuzzing and to pilling - Martindale method - Upholstery (Express)			UNI EN ISO 12945-2:2002
Characteristics assessed		FUZZING	
Number of specimens		1	
Pretreatment		NONE	
Abrading fabric		WOOL STADNARD	
Assessment at 500 rubs		5	
Assessment at 1.000 rubs		5	
Assessment at 2.000 rubs		5	

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Tests	M.U.	Results	Method
Assessment at 5.000 rubs		4-5	
Prefixed load	N	180	
Weft slippage - Number of specimens		3	
Weft slippage - Seam slippage	mm	5,3	
Warp slippage - Number of specimens		3	
Warp slippage - Seam slippage	mm	7,1	
			UNI EN ISO 13936-2:2004

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

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