

PRÜFSTELLE TEXTIL



SÄCHSISCHES
TEXTIL
FORSCHUNGS
INSTITUT e.V.

Durch das DAP Deutsches Akkreditierungssystem Prüfwesen - vertreten im Deutschen Akkreditierungsrat - akkreditiertes Prüflaboratorium Die Akkreditierung gilt für die in der Urkunde aufgeführten Prüfverfahren.



Durch die Zentralstelle der Länder für Sicherheitstechnik (ZLS) akkreditierte Prüfstelle für Produkte im Sinne der EG-Richtlinie für Persönliche Schutzausrüstungen 89/686/EWG und des §9 Abs. 2 Gerätesicherheitsgesetz



Von der Federation Internationale de L'Automobile (FIA) Paris zugelassene Stelle zur Prüfung von Schutzkleidung für Auto-Rennfahrer - FIA standard 8856-2000



UNTERSUCHUNGSBERICHT | TESTREPORT

Order No. STFI:	0101/10
Order No applicant:	-
Date of Test-Report:	23 February 2010
Testing officer:	Mehnert/Beyer
Applicant:	Tissages Robert Gauthier & Fils Mr. Jean-Philippe Boutois B.P. 15 – Saint-Victor-de-Morestel 38510 MORESTEL FRANCE
Testing application:	
as of:	13 January 2010
order receipt on:	18 January 2010
sample receipt on:	14 April 2008/ 18 January 2010

Test specimen: fabric for protective clothing

Marking by applicant	Marking for testing
Fabric Bodyguard AS 270 - MC613219A , colour navy, 55% Protex® / 43% Cotton / 2% Negastat, approx. 270 g/m ²	sample 01

The sampling happened by the applicant. There is no information about the sampling method.

Testing method/testing conditions:

Tests according to EN ISO 11612:2008, EN ISO 11611:2007 and EN 340:2003

Pre-treatment: 5 washing cycles 60°C according to EN ISO 6330+A1:2009, method 2A+E

Property – Fabric	Test method ¹⁾
<u>EN ISO 11612:</u> Heat resistance / shrinkage after pre-treatment	ISO 17493:2000, 5 minutes, (180 ± 5) °C
Limited flame spread - code A1 new and after pre-treatment	EN ISO 15025:2002, method A surface ignition, flaming time 10 s
Dimensional change after 5 washing cycles	EN ISO 5077:2008/ EN ISO 3759:2008
Tensile strength after pre-treatment	EN ISO 13934-1:1999
Tear strength after pre-treatment	EN ISO 13937-2:2000
pH value	EN ISO 3071:2006
Convective heat - code B after pre-treatment	ISO 9151:1995
Radiant heat - code C after pre-treatment	EN ISO 6942:2002, q ₀ = 20 kW/m ²
Molten iron splash - code E after pre-treatment	EN ISO 9185:2007
<u>EN ISO 11611:</u> Tensile strength after pre-treatment	EN ISO 13934-1:1999
Tear strength after pre-treatment	EN ISO 13937-2:2000
Dimensional change after 5 washing cycles	EN ISO 5077:2008/ EN ISO 3759:2008
Limited flame spread - code A1 after pre-treatment	EN ISO 15025:2002, method A surface ignition, flaming time 10 s
Small hot metal drops after pre-treatment	EN 348:1992 / ISO 9150:1988

Property – Fabric	Test method ¹⁾
Heat transfer radiation after pre-treatment	EN ISO 6942:2002, q0= 20 kW/m ²
Vertical resistance R _v after pre-treatment	EN 1149-2:1997 Test condition: relative humidity (85 ± 5)% temperature (20 ± 2)°C
pH value	EN ISO 3071:2006
<u>EN 340:</u> Amines derived from AZO colorants	EN 14362-1:2003

1) if available, the actual valid standard edition in German, identical to the international ones, is used for testing

Test results:

Test results partly adopted from the following Test Reports:

- Test Report STFI Nr. 0779/08 as of 2008-05-07 and
- Confidential Report BTTG reference 30/04754 as of 28 January 2010

Property - fabric	Dimension	Test results Bodyguard AS 270
<u>EN ISO 11612:</u> Heat resistance shrinkage lengthwise across melting, dripping, ignition	% %	- 2,0 - 1,3 no
Limited flame spread - code A1 Surface ignition Further flaming to top or sides Hole formation Flaming or melting debris Afterflame time Afterglow time	 s s	new and after pre-treatment <i>lengthwise</i> <i>across</i> no no no no no no 0 0 0 0
Dimensional change lengthwise across	% %	- 3,0 - 2,2
Tensile strength lengthwise across	N	962 522
Tear strength lengthwise across	N	20,7 20,5
pH value		6,3
Convective heat - code B Heat transfer index HTI ₂₄	s	5,1

Property - fabric	Dimension	Test results Bodyguard AS 270	
Radiant heat - code C Heat transfer index RHTI ₂₄	s	14,9	
Molten iron splash – code E Index	g	64	
<u>EN ISO 11611:</u>			
Tensile strength	lengthwise	N	962
	across		522
Tear strength	lengthwise	N	20,7
	across		20,5
Dimensional change	lengthwise	%	- 3,0
	across	%	- 2,2
Limited flame spread - code A1 Surface ignition		after pre-treatment	
Further flaming to top or sides		lengthwise	across
Hole formation		no	no
Flaming or melting debris		no	no
Afterflame time	s	0	0
Afterglow time	s	0	0
Small hot metal drops	number drops to $\Delta T=40$ K	23	
Heat transfer (radiation) Heat transfer index RHTI ₂₄	s	14,9	
Vertical resistance R _v	Ω	4,2 x 10 ⁵	
pH value		6,3	
<u>EN 340:</u>			
Amines derived from AZO colorants		not detectable	

Test results refer to the delivered specimen. Test protocols and statistical information about test data can be viewed in the test house. This Test Report consists of 4 pages and should not be published in parts.



Dr.-Ing. Matthias Mägel
Head of the testing department




Dipl.-Ing. Lore Mehnert
Responsible testing officer

Remark:

The tested fabric Bodyguard AS 270 - MC613219A is suitable for using for welders protective clothing according to EN ISO 11611:2007, class 1-A1 and for heat protective clothing according to EN ISO 11612:2008, code A1, code B1, code C1 and code E1.

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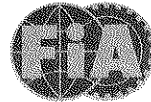
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ausrüstungen 89/686/EWG und des §9 Abs. 2 Gerätesicherheitsgesetz



Von der Federation Internationale de L'Automobile (FIA) Paris zugelassene
Stelle zur Prüfung von Schutzkleidung für Auto-Rennfahrer - FIA standard
8856-2000



UNTERSUCHUNGSBERICHT | TESTREPORT

Order No. STFI: 0101.1/10
Order No applicant: -

Date of Test-Report: 16 July 2010
Testing officer: Mehnert/Beyer

Applicant: Tissages Robert Gauthier & Fils
B.P. 15 – Saint-Victor-de-Morestel
38510 MORESTEL
FRANCE

Testing application:
as of: 16 July 2010
order receipt on: 16 July 2010
sample receipt on: 18 January 2010

Test specimen: fabric for protective clothing

Marking by applicant	Marking for testing
Fabric Bodyguard AS 270 - MC613219A , colour navy, 55% Protex® / 43% Cotton / 2% Negastat, approx. 270 g/m ²	sample 01

The sampling happened by the applicant. There is no information about the sampling method.

Testing method/testing conditions:

Selected test according to EN ISO 11612:2008

Pre-treatment: 5 washing cycles 60°C according to EN ISO 6330+A1:2009, method 2A+E

Property – Fabric	Test method ¹⁾
<u>EN ISO 11612:</u> Contact heat - code F after pre-treatment	ISO 12127:1996, <i>withdrawn but included in requirements of EN ISO 11612</i> Contact temperature T _c = 250°C

1) if available, the actual valid standard edition in German, identical to the international ones, is used for testing


Test results:

Property - fabric	Dimension	Test results Bodyguard AS 270
<u>EN ISO 11612:</u> Contact heat – code F Threshold time t _t	s	5,3
Classification according to EN ISO 11612		Code F1 met

Test result refers to the delivered specimen. Test protocols and statistical information about test data can be viewed in the test house. This Test Report consists of 2 pages and should not be published in parts.


 Dr.-Ing. Matthias Mägel
 Head of the testing department




 Dipl.-Ing. Lore Mehnert
 Responsible testing officer