



# INTERTEK TEST REPORT

3933 US ROUTE 11

CORTLAND, NEW YORK 13045

Order No. G100264851

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Date: December 20, 2010

**ASTM F739-07  
STANDARD TEST METHOD FOR RESISTANCE OF  
PROTECTIVE CLOTHING MATERIALS TO  
PERMEATION BY LIQUIDS AND GASES  
UNDER CONDITIONS OF CONTINUOUS CONTACT**

**REPORT NO.: G100264851CRT-001**

**RENDERED TO:**

**ADVANCED TECHNOLOGY GLOVES  
5193 MILLWOOD DRIVE  
CANTON, GA 30114**

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**STANDARD AND TEST USED:**

ASTM F 739-07, Standard Test Method for Resistance of Protective Clothing Materials to Permeation by Liquids or Gasses Under Conditions of Continuous Contact.

**AUTHORIZATION:**

The test was authorized by Quote Number: 500267042.

**SPECIMEN DESCRIPTION:**

The test was performed on specimens identified by the client as "MaxiDry LR 56-530." This report describes the result of ASTM F739-07 performed on the specimens previously described and submitted by Advanced Technology Gloves. The samples were received in pristine condition on 11/12/10, and the test evaluation was conducted at Intertek located in Cortland, NY on 12/17/10.

**CONCLUSION:**

The specimens previously described, submitted by Advanced Technology Gloves, were evaluated in accordance with ASTM F739-07 Standard Test Method for Resistance of Protective Clothing Materials to Permeation by Liquids or Gasses Under Conditions of Continuous Contact. Test data sheets are attached as an appendix (3 pages following).

Test Conducted by:



Adrian Buzea  
Associate Chemist  
Performance Group

Report Approved by:



Daniel Dalpiaz  
Chemical Engineer/Supervisor  
Performance Group

AB

**APPENDIX  
ASTM F739-07  
CHEMICAL PERMEATION**

**MATERIAL NAME:** MaxiDry LR 56-530  
**LOT ID/MFG. DATE:** N/A  
**COLLECTION MEDIUM VOLUME (mL):** 2  
**COLLECTION MEDIUM FLOW RATE (mL/min):** N/A  
**PRIOR CONDITIONING:** >24 hours ambient  
**CHALLENGE CHEMICAL:** Skydrol 500B-4  
**TEST DATE:** 12/17/10

**TEST TEMPERATURE (°C):** 22°C  
**SAMPLE AREA EXPOSED (cm<sup>2</sup>):** 4.9  
**TEST DURATION:** 8 Hours  
**CONCENTRATION:** 99+%  
**CAS NO.:** Mixture  
**CHEMICAL SOURCE:** Solutia

TEST RESULTS	CELL 1	CELL 2	CELL 3	AVG	STD DEV
ACTUAL BREAKTHROUGH TIME (min)	>480	>480	>480	>480	0
NORMALIZED BREAKTHROUGH TIME (min) Using BT criteria of 0.1µg/cm <sup>2</sup> /min	>480	>480	>480	>480	0
BREAKTHROUGH DETECTION TIME (min) (using EN 369 BT criteria if 1.0 µg/cm <sup>2</sup> /min)	>480	>480	>480	>480	0
PERMEATION RATE: µg/cm <sup>2</sup> /min Steady state rate X Maximum rate	<0.01	<0.01	<0.01	<0.01	0
UNIT AREA WEIGHT (g/m <sup>2</sup> )	733	736	750	740	9.07
SAMPLE THICKNESS (mils)	43	43	41	42	1.2

<b>MODIFICATIONS OF METHOD</b>	1" Cells	<b>TYPE OF CONTACT</b>	Continuous
<b>ANALYTICAL TECHNIQUE</b>	UV-vis	<b>COLLECTION MEDIUM</b>	Benzene
<b>SAMPLING FREQUENCY</b>	15 minutes first hour, 30 minutes thereafter	<b>MIN. DETECTION LIMIT</b>	1 ppm
<b>CHEMICAL STATE</b>	Liquid	<b>MIN. DETECTABLE RATE</b>	0.01 µg/cm <sup>2</sup> /min

**ASTM F739-07  
CHEMICAL PERMEATION**

**MATERIAL NAME:** MaxiDry LR 56-530  
**LOT ID/MFG. DATE:** N/A  
**COLLECTION MEDIUM VOLUME (mL):** 2  
**COLLECTION MEDIUM FLOW RATE (mL/min):** N/A  
**PRIOR CONDITIONING:** >24 hours ambient  
**CHALLENGE CHEMICAL:** Skydrol LD-4  
**TEST DATE:** 12/17/10

**TEST TEMPERATURE (°C):** 22°C  
**SAMPLE AREA EXPOSED (cm<sup>2</sup>):** 4.9  
**TEST DURATION:** 8 Hours  
**CONCENTRATION:** 99+%  
**CAS NO.:** Mixture  
**CHEMICAL SOURCE:** Solutia

TEST RESULTS	CELL 1	CELL 2	CELL 3	AVG	STD DEV
ACTUAL BREAKTHROUGH TIME (min)	>480	>480	>480	>480	0
NORMALIZED BREAKTHROUGH TIME (min) Using BT criteria of 0.1 µg/cm <sup>2</sup> /min	>480	>480	>480	>480	0
BREAKTHROUGH DETECTION TIME (min) (using EN 369 BT criteria if 1.0 µg/cm <sup>2</sup> /min)	>480	>480	>480	>480	0
PERMEATION RATE: µg/cm <sup>2</sup> /min Steady state rate                      X    Maximum rate	<0.01	<0.01	<0.01	<0.01	0
UNIT AREA WEIGHT (g/m <sup>2</sup> )	725	712	700	712	12.5
SAMPLE THICKNESS (mils)	41	44	40	42	2.1

MODIFICATIONS OF METHOD	1" Cells	TYPE OF CONTACT	Continuous
ANALYTICAL TECHNIQUE	UV-vis	COLLECTION MEDIUM	Benzene
SAMPLING FREQUENCY	15 minutes first hour, 30 minutes thereafter	MIN. DETECTION LIMIT	1 ppm
CHEMICAL STATE	Liquid	MIN. DETECTABLE RATE	0.01 µg/cm <sup>2</sup> /min

**ASTM F739-07  
CHEMICAL PERMEATION**

**MATERIAL NAME:** MaxiDry LR 56-530  
**LOT ID/MFG. DATE:** N/A  
**COLLECTION MEDIUM VOLUME (mL):** 2  
**COLLECTION MEDIUM FLOW RATE (mL/min):** N/A  
**PRIOR CONDITIONING:** >24 hours ambient  
**CHALLENGE CHEMICAL:** Skydrol 5  
**TEST DATE:** 12/17/10

**TEST TEMPERATURE (°C):** 22°C  
**SAMPLE AREA EXPOSED (cm<sup>2</sup>):** 4.9  
**TEST DURATION:** 8 Hours  
**CONCENTRATION:** 99+%  
**CAS NO.:** Mixture  
**CHEMICAL SOURCE:** Solutia

TEST RESULTS	CELL 1	CELL 2	CELL 3	AVG	STD DEV
ACTUAL BREAKTHROUGH TIME (min)	240	>480	>480	400	138
NORMALIZED BREAKTHROUGH TIME (min) Using BT criteria of 0.1µg/cm <sup>2</sup> /min	>480	>480	>480	>480	0
BREAKTHROUGH DETECTION TIME (min) (using EN 369 BT criteria if 1.0 µg/cm <sup>2</sup> /min)	>480	>480	>480	>480	0
PERMEATION RATE: µg/cm <sup>2</sup> /min Steady state rate X Maximum rate	0.06	<0.01	<0.01	0.023	0.03
UNIT AREA WEIGHT (g/m <sup>2</sup> )	718	679	656	684	31.3
SAMPLE THICKNESS (mils)	44	42	43	43	1.0

MODIFICATIONS OF METHOD	1" Cells	TYPE OF CONTACT	Continuous
ANALYTICAL TECHNIQUE	UV-vis	COLLECTION MEDIUM	Benzene
SAMPLING FREQUENCY	15 minutes first hour, 30 minutes thereafter	MIN. DETECTION LIMIT	1 ppm
CHEMICAL STATE	Liquid	MIN. DETECTABLE RATE	0.01 µg/cm <sup>2</sup> /min