

# SAINT-GOBAIN SOLAR GARD LLC TEST REPORT

**SCOPE OF WORK**

JIS Z 2801/ISO 22196:2011 - Measurement of antibacterial activity on plastics and other non-porous surfaces

**PRODUCT:**

4mil Antimicrobial Film TL3-AM PET Lot# 5404071

**REPORT NUMBER**

104448801COL-003

**ISSUE DATE**

16-DECEMBER-2020

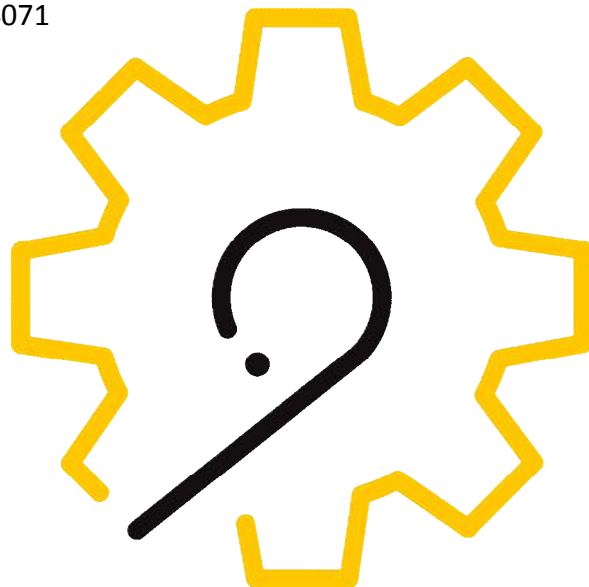
**PAGES**

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**DOCUMENT CONTROL NUMBER**

GFT-OP-10h (6-July-2017)

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**MICROBIOLOGICAL PERFORMANCE TEST REPORT**

<b>Client</b>		<b>Saint-Gobain Solar Gard LLC</b> <b>4540 View ridge Avenue</b> <b>San Diego, CA 92123</b>
<b>Project No.</b>		<b>G104448801</b>
<b>Sample</b>	<b>Product</b>	4mil Antimicrobial Film
	<b>Model</b>	TL3-AM PET Lot# 5404071
	<b>Identification No.</b>	COL2008311016-001
	<b>Date Received</b>	August 31, 2020
	<b>Condition</b>	Good
	<b>Production or Prototype</b>	Production
<b>Procedural</b>	<b>Tested By</b>	Allison Coyle
	<b>Reviewer</b>	Nicholas Unger
	<b>Dates Tested</b>	November 30, 2020 – December 4, 2020
	<b>Report Date</b>	December 16, 2020
<b>Standard</b>	JIS Z 2801/ISO 22196:2011 - Measurement of antibacterial activity on plastics and other non-porous surfaces	

**Test Parameters:**

<b>Organism</b>	<b>ATCC No</b>	<b>Initial Concentration</b>
Escherichia Coli	8739	5.30x10 <sup>5</sup> cfu/mL
Staphylococcus aureus	6538	9.44x10 <sup>5</sup> cfu/mL

<b>Test Inoculum Volume</b>	<b>Viable E. coli in Inoculum</b>	<b>Viable S. aureus in Inoculum</b>	<b>Polymer Type</b>	<b>Polymer Thickness</b>
<b>0.4 mL</b>	5.30x10 <sup>5</sup> cfu/mL	9.44x10 <sup>5</sup> cfu/mL	Para Film	0.127mm

<b>Test Parameter</b>	<b>Definition of Term</b>
<b>U<sub>0</sub></b>	Is the average of the common logarithm of the number of viable bacteria, in cells/cm <sup>2</sup> recovered from the untreated test specimens immediately after inoculation.
<b>U<sub>t</sub></b>	Is the average of the common logarithm of the number of viable bacteria, in cells/cm <sup>2</sup> recovered from the untreated test specimens after 24 h.
<b>A<sub>t</sub></b>	Is the average of the common logarithm of the number of viable bacteria, in cells/cm <sup>2</sup> recovered from the treated test specimens after 24 h.
<b>Antibacterial Activity Value</b>	Is calculated utilizing the following equation: = (U <sub>t</sub> - U <sub>0</sub> ) - (A <sub>t</sub> - U <sub>0</sub> ) = U <sub>t</sub> - A <sub>t</sub>

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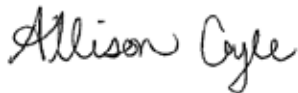
**MICROBIOLOGICAL PERFORMANCE TEST REPORT**

**1. 4mil Antimicrobial Film – TL3-AM PET Lot# 5404071**

S. aureus Results		E. coli Results	
Test Parameter	Result	Test Parameter	Result
<i>Initial U<sub>0</sub></i>	5.97	<i>Initial U<sub>0</sub></i>	5.72
<i>24 Hr U<sub>t</sub></i>	3.19	<i>24 Hr U<sub>t</sub></i>	4.11
<i>24 Hr A<sub>t</sub></i>	1.00	<i>24 Hr A<sub>t</sub></i>	1.00
Antibacterial Activity Value	2.19	Antibacterial Activity Value	3.11
Percent Reduction	99.4%	Percent Reduction	99.9%

**Note:** Antibacterial Activity Values are presented in Log form as per standard requirements. A value of 1.00 would equate to a 90% reduction. A 2 would be 99%, a 3 99.9% and so forth.

Test Performed by:



Allison Coyle  
Chemist  
Columbus Office

Report Approved by:



Nicholas Unger  
Staff Engineer  
Columbus Office