



# COMMERCIAL TESTING COMPANY

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WA Quality Standard for Polymer Coated Fabric Wallcovering

W-101 (2013)

**LG Hausys Wallcovering Gracia TEX (F)**

Report Number 16-04168

Test Number 4766-6969-0416R2

February 5, 2016

LG Hausys, Ltd.  
Chungbuk-do, Korea

Commercial Testing Company

(Authorized Signature)

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## INTRODUCTION

This report is a presentation of results of an evaluation of wallcovering submitted by LG Hausys, Ltd., Chungbuk-do, Korea. The client submitted a sample of wallcovering identified as **LG Hausys Wallcovering Gracia TEX (F)**.

The evaluation was done in accordance with the W-101 (2013), *Quality Standard for Polymer Coated Fabric Wallcovering*. The purpose of the standard is to establish nationally recognized quality standards for polymer coated fabric wallcovering for institutional and commercial use, and to provide producers, distributors, and users with a basis for a common understanding of the characteristics of the product. It sets forth quality standards and test methods for measuring the properties of polymer coated fabric wallcovering.

The Standard covers three types based upon specific physical test requirements: Type I – Light Duty, intended for use in areas of low wear; Type II – Medium Duty, intended for use in areas of medium wear; and Type III – Heavy Duty, intended for use in areas of heavy wear.

NOTE: The standard also provides two Classes based on ASTM Test Method E 84 data: Class A – Flame Spread Index of 0–25 inclusive and Smoke development of 0–50 inclusive; Class B – Flame Spread Index of 26–75 inclusive and Smoke development of 0–100 inclusive.

Unless otherwise specified, the flame spread and the smoke development testing shall be conducted on glass reinforced cement board (GRC) or equivalent. Materials that meet the requirements of NFPA 286, are exempt.

## PHYSICAL TEST REQUIREMENTS

	Type I Light Duty	Type II Medium Duty	Type III Heavy Duty
Total Wt., oz /yd2 (min)	7	13	22
Coating Wt., oz /yd2 (min)	5	7	12
Breaking Strength, lbf (min)			
Machine Direction	40	50	100
Cross Machine Direction	30	55	95
Tearing Strength, Scale Reading (min)			
Machine Direction	12	25	50
Cross Machine Direction	12	25	50
Coating Adhesion, lbf for 1" width	2	3	3
Colorfastness to Light	200	200	200
Blocking, scale rating (max)	2	2	2
Crocking, scale rating (min)	Good	Good	Good
Cold Crack Resistance, -20°F	No Change	No Change	No Change
Heat Aging, 7 days at 158°F	Note 1	Note 1	Note 1
Shrinkage, % (max)			
Machine Direction	2	2	2
Cross Machine Direction	1	1	1
Stain Resistance, Reagents	1 — 9 (Note 2)	1 — 12 (Note 2)	1 — 12 (Note 2)
Washability, cycles (min)	100	100	100
Scrubbability, cycles (min)	200	300	500

Note 1: The specimen shall not become stiff, brittle, discolored, or show loss of grain.

Note 2: Stain Resistance

Reagent	Reagent	Reagent
(1) 75°F distilled water	(5) 1% NaOH solution	(9) orange juice
(2) 120°F distilled water	(6) 5% HCl	(10) butter
(3) 50% ethyl alcohol	(7) standard soap solution	(11) catsup
(4) vinegar (3% acetic acid)	(8) detergent solution	(12) tea

**MATERIAL TESTED AND TEST DATA**

The client submitted a sample of wallcovering identified as **LG Hausys Wallcovering Gracia TEX (F)**.

	<b>Test Data</b>	<b>Test Result (Type I)</b>
Total Wt., oz/ yd <sup>2</sup> (min)	10.55	Pass
Coating Wt., oz/ yd <sup>2</sup> (min)	9.38	Pass
Breaking Strength, lbf (min)		
Machine Direction	516	Pass
Cross Machine Direction	378	Pass
Tearing Strength, Scale Reading (min)		
Machine Direction	91	Pass
Cross Machine Direction	65	Pass
Coating Adhesion, lbf for 1" width		
Machine Direction	2.0	Pass
Cross Machine Direction	3.0	Pass
Colorfastness to Light	Excellent	Pass
Blocking, scale rating (max)	1	Pass
Croaking, scale rating (min)	Excellent	Pass
Cold Crack Resistance, -20°F	No Change	Pass
Heat Aging, 7 days at 158°F	No Change	Pass
Shrinkage, % (max)		
Machine Direction	- 0.854	Pass
Cross Machine Direction	- 0.478	Pass
Stain Resistance	10 of 12 Pass	Pass
Washability, cycles (min)	100	Pass
Scrubbability, cycles (min)	300	Pass
Flame Spread Index	Class A	Pass
Smoke Developed Index	Class A	Pass

**TYPE AND CLASSIFICATION**

Based on the overall test results obtained for the wallcovering identified as **LG Hausys Wallcovering Gracia TEX (F)**, the material meets the requirements for Type I.