Laboratory Report

Report Date: 3/6/13

Laboratory Project ID: 13-641

Customer: HP Spartacote, Inc.

810 Brickyard Circle #1 Golden, CO 80403 Contact: David Schneider

Sample Received:

Lab ID: 13-641.2112

Description: One 4-inch by 6-inch panel, coated on one side, labeled: 3-Coat - Solid- w/ Clear

Testing Performed:

ASTM C1028 - Standard Test Method for Determining the Static Coefficient of Friction of Ceramic Tile and Other like Surfaces by the Horizontal Dynamometer Pull-Meter Method

Dates Tested: 2/28/13

13-641.2112

		Wet Coefficient			
Dry Test Pull #	Force	Friction	Wet Test Pull #	Force	of Friction
1	39	1.00	1	41	0.69
2	36	0.95	2	44	0.74
3	40	1.01	3	46	0.78
4	40	1.02	4	49	0.82
5	38	0.98	5	54	0.92
6	37	0.96	6	51	0.86
7	38	0.99	7	50	0.84
8	37	0.96	8	49	0.84
9	38	0.97	9	48	0.81
10	36	0.95	10	51	0.87
11	39	1.00	11	51	0.88
12	37	0.96	12	54	0.93

FD (static coefficient of 0.98 friction for dry surface):

Fw (static coefficient of 0.83 friction for wet surface):

All test pulls performed on one panel

CCC&L an Equal Opportunity Employer Report ID 13-641 4403 Donker Court SE, Grand Rapids, Michigan 49512 (616) 940-3112 www.ccclabs.com

Corrosion Control Consultants and Labs, Inc. a GPI company

Sample Received:

Lab ID: 13-641.2113

Description: One 4-inch by 6-inch panel, coated on one side, labeled: Full Chip System

Testing Performed:

ASTM C1028 - Standard Test Method for Determining the Static Coefficient of Friction of Ceramic Tile and Other like Surfaces by the Horizontal Dynamometer Pull-Meter Method

Dates Tested: 2/28/13

13-641.2113

	Dry Coefficient of	Wet Coefficient		
Force	Friction	Wet Test Pull #	Force	of Friction
36	0.92	1	38	0.64
36	0.92	2	38	0.63
39	0.97	3	40	0.66
38	0.95	4	38	0.63
38	0.94	5	40	0.67
37	0.94	6	40	0.66
41	1.00	7	41	0.68
38	0.96	8	36	0.60
38	0.96	9	43	0.71
38	0.95	10	41	0.68
40	0.99	11	36	0.60
39	0.96	12	40	0.67
	36 36 39 38 38 37 41 38 38 38 40	Force Friction 36 0.92 36 0.92 39 0.97 38 0.95 38 0.94 37 0.94 41 1.00 38 0.96 38 0.96 38 0.95 40 0.99	36 0.92 1 36 0.92 2 39 0.97 3 38 0.95 4 38 0.94 5 37 0.94 6 41 1.00 7 38 0.96 8 38 0.96 9 38 0.95 10 40 0.99 11	Force Friction Wet Test Pull # Force 36 0.92 1 38 36 0.92 2 38 39 0.97 3 40 38 0.95 4 38 38 0.94 5 40 37 0.94 6 40 41 1.00 7 41 38 0.96 8 36 38 0.96 9 43 38 0.95 10 41 40 0.99 11 36

FD (static coefficient of 0.95 friction for dry surface):

Fw (static coefficient of 0.65 friction for wet surface):

All test pulls performed on one panel

Corrosion Control Consultants and Labs, Inc. a GPI company

Sample Received:

Lab ID: 13-641.2114

Description: One 4-inch by 6-inch panel, coated on one side, labeled: Quartz

Testing Performed:

ASTM C1028 – <u>Standard Test Method for Determining the Static Coefficient of Friction of</u> Ceramic Tile and Other like Surfaces by the Horizontal Dynamometer Pull-Meter Method

Dates Tested: 2/28/13

13-641.2114

			Wet Coefficient		
Dry Test Pull #	Force	Friction	Wet Test Pull #	Force	of Friction
1	52	1.20	1	53	0.90
2	48	1.13	2	51	0.87
3	50	1.17	3	51	0.88
4	48	1.14	4	50	0.86
5	49	1.16	5	52	0.89
6	47	1.12	6	53	0.90
7	51	1.20	7	54	0.91
8	50	1.17	8	54	0.91
9	51	1.19	9	54	0.92
10	47	1.12	10	52	0.89
11	50	1.17	11	50	0.86
12	46	1.10	12	54	0.93

FD (static coefficient of 1.16 friction for dry surface):

Fw (static coefficient of 0.89 friction for wet surface):

All test pulls performed on one panel

Reviewed By:

Rebecca M. Walcott, Product Testing Manager