

August 28, 2019

Mr. Petra Dušková
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Subject: **Report of Results of ASTM C484 & C648 Tile Testing**
Products Name: Starlight Black Tile
TEC Services Project Number: TEC 19-1512
TEC Services Laboratory Number: 19-1112

Dear Mr. Dušková:

SGS TEC Services is an AASHTO R18, ANS/ISO/IEC 17025:2005, and Army Corps of Engineering accredited laboratory. SGS TEC Services is pleased to submit this report of test results on the set of submitted stone specimens designated as “Starlight Black Tile” that were received at our facility in May of 2019. Testing was performed in accordance with the terms of the signed service agreement (TEC-PRO-19-1512). These test results pertain only to the samples tested.

Technistone requested the submitted set of stone specimens be tested for their breaking strength and thermal shock properties. The thermal shock testing was performed with and without immersion in accordance with ASTM C484-14 *Standard Test Method for Thermal Shock Resistance of Glazed Ceramic Tile*. The breaking strength testing was performed in accordance with ASTM C648-14 *Standard Test Method for Breaking Strength of Ceramic Tile*. Results of the C484 thermal shock testing are reported in Table 1. Results of the C648 breaking strength testing are reported in Table 2.

Table 1 – ASTM C484 - With and Without Immersion - Results for Starlight Black Tile Specimens

Specimen ID	Oven Dry Weight (grams)	SSD Weight (grams)	Absorption (percent)	Cycles Completed	Visual Defects Observed
1	2,065.6	2,068.3	0.13	10	None
2	2,079.3	2,081.4	0.10	10	None
3	2,049.9	2,051.5	0.08	10	None
4	2,055.4	2,057.9	0.12	10	None
5	2,058.3	2,060.7	0.12	10	None
Average				10	None

Table 2 – ASTM C648 – Breaking Strength - Results for Starlight Black Tile Specimens

Specimen ID	Width 1 (in)	Width 2 (in)	Thickness (in)	Peak Load (lbf.)	Average Peak Load (lbf.)
1	11.816	11.818	0.389	950	937
2	11.819	11.817	0.379	826	
3	11.818	11.816	0.392	994	
4	11.816	11.814	0.379	863	
5	11.806	11.814	0.404	1,052	

We appreciate the opportunity to provide our services to you on this project. Should you have any questions or comments regarding this report, please feel free to contact us at your convenience.

Sincerely,

SGS TEC Services, Inc.



Chip P. Sherwood Jr.
 Project Manager



Shawn P. McCormick
 Laboratory Principal