Title: Light Reflectance Test Results

Product: Envirocoustic Wood Wool - Painted White

Testing Standard: ASTM E1477

Test Date: 5/15/2024

Why this test: This test evaluates the amount of light reflected by the surface of the material.

Test Result Summary: Luminous Reflectance Value - 76

Absolute Values (Observer 10°; Illuminant: D65)						
Sample Id	**L***	**a***	**b***	**LRF (Min)**	**LRF (Max)**	**LRV**
Stock White	89.63	1.26	3.28	43.67	82.98	76

Test ID: MT-000715

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Report to: Joe Satek
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Chaska, MN

Test Date: 05/15/2024
Report Date: 05/16/2024
Test ID: MT-000715
Test Name: ASTM E1477
Reflectance Factor of
Acoustical Materials

Sample description

	Sample Id Stock White	Sample Id OC-55
Identification	Stock White	OC-55
Color	White	White
Construction	Cementitious Wood Fiber Acoustic Board (12" x 12")	
Test Number	307807	307808

Test method conducted

ASTM E1477 standard method for reflectance factor of acoustical materials using Integrating-Sphere Reflectometer.

General principle

This test method covers the instrumental measurement of the reflection properties and color of acoustical material specimens by use of a hemispherical spectrophotometer optical measuring system.

The reflectance factor and color values are measured by means of a Hunter Lab UltraScan XE Spectrophotometer. The luminous reflectance factor and color factor are expressed in the numerical value where LRF is the luminous reflectance factor, LRV is the average luminous reflectance factor value, and L*a*b* is the color value. LRV is calculated automatically by the system and is based on the calculation: CIE Y 1964 (10°) standard observer, using the D65 illuminant.

Results

Here, LRF is the luminous reflectance factor, and L*a*b* is the color value.

Spectrophotometer Reflectance Factor Rating Summary-

Sample Id	LRF (Min)	LRF (Max)	LRV	Observer	Illuminant
Stock White	43.67	82.98	76	10°	Daylight
OC-55	41.52	65.46	63	10°	Daylight

Detailed Spectrophotometer Report-

Absolute Values (Observer 10°; Illuminant: D65)						
Sample Id	**L***	**a***	**b***	**LRF (Min)**	**LRF (Max)**	**LRV**
Stock White	89.63	1.26	3.28	43.67	82.98	76
OC-55	83.51	0.34	3.78	41.52	65.46	63

Spectral data		
Wavelength (nm)	**LRF (Stock White)**	**LRF (OC-55)**
400	43.67	41.52
420	69.96	57.09
440	71.67	59.02
460	72.14	59.73
480	72.79	59.95
500	73.48	60.83
520	74.25	62.23
540	74.74	63.22
560	75.57	63.84
580	76.73	64.37
600	77.83	64.66
620	78.71	64.72
640	79.98	65.01
660	81.13	65.23
680	82.19	65.46
700	82.98	65.46

Report Reviewed by:

Ruchika Yogesh

Dr Ruchika Yogesh
Director, MaTestLab Inc.

End of the Report