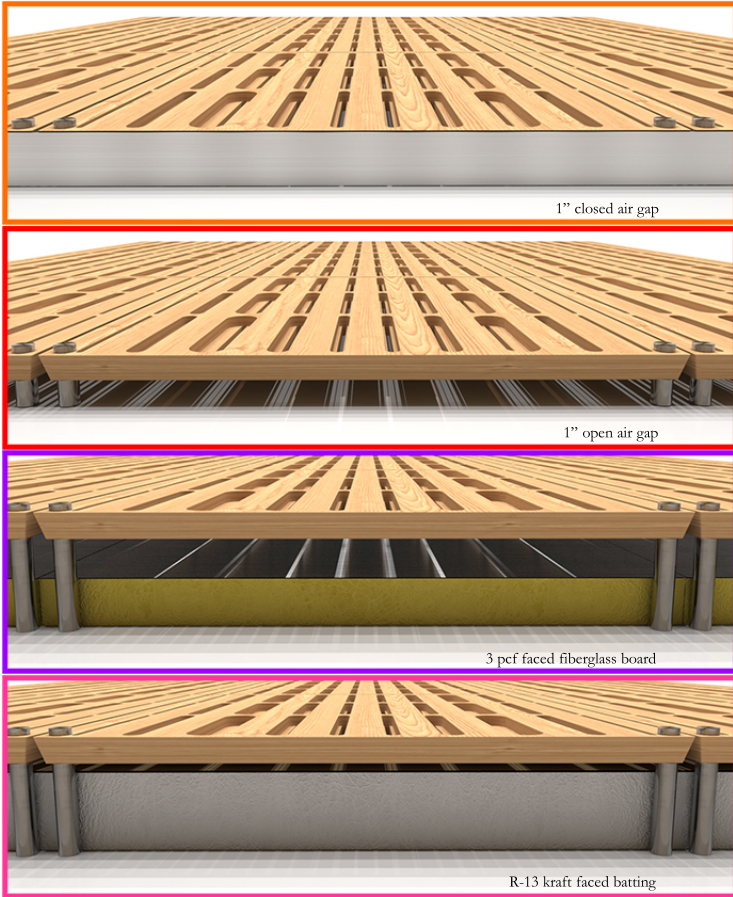


DIFFUSE Signature Supplemental Acoustic Performance Data

DIFFUSE Signature | WOOD

DIFFUSE Signature absorption tests were conducted at Johns Manville Technical Center in accordance with ASTM C-423a industry standard test methods. Scattering tests were conducted at NWAA Labs in accordance with ISO 17497-2 industry standard test methods and cross correlated at Sound Kinetics Labs.



ISO - 17497 - 2		ASTM C-423a				
f (hz)	Scattering	Absorption				
		1" standoff sides closed	1" standoff sides open	3.5" + faced fiberglass board	3.5" + faced batting	
100	0.78	0.00	0.00	0.28	0.76	
125	0.75	0.00	0.00	0.38	0.72	
160	0.79	0.01	0.00	0.60	0.89	
200	0.81	0.00	0.01	0.90	0.89	
250	0.82	0.02	0.02	1.15	0.83	
315	0.82	0.04	0.03	1.16	0.70	
400	0.84	0.04	0.03	1.03	0.54	
500	0.85	0.08	0.05	0.61	0.35	
630	0.93	0.14	0.09	0.30	0.20	
800	0.88	0.21	0.16	0.28	0.16	
1000	0.76	0.19	0.16	0.30	0.18	
1250	0.72	0.16	0.15	0.28	0.20	
1600	0.71	0.15	0.14	0.25	0.21	
2000	0.70	0.14	0.12	0.21	0.22	
2500	0.69	0.12	0.12	0.19	0.23	
3150	0.66	0.13	0.13	0.17	0.21	
4000	0.73	0.15	0.13	0.15	0.21	
5000	0.75	0.18	0.18	0.23	0.29	
6300	0.76					
8000	0.71	SAA	0.11	0.09	0.57	0.40
		NRC	0.10	0.10	0.50	0.40

Notes: Scattering is calculated as the total difference (delta) between perfect scattering half sphere and the product under test. For diffuser testing, ideal data is extracted by testing multiple angles to create a half sphere of sound pressure. The EASE attenuation balloon is a very accurate representation of this half sphere and is available from NWAA Labs or Arithmetic Design.

