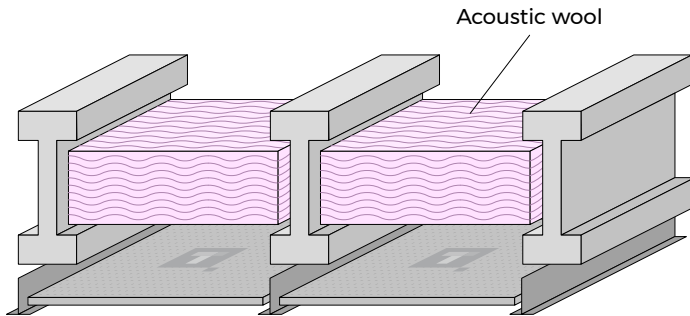




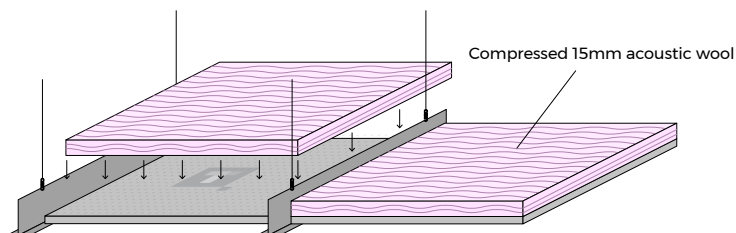
1. Results of sound absorption tests

The current report contains the results obtained following a research and development procedure for the Microperforated T|Karra product. The mandate was to perform sound absorption tests on a ceiling prototype using the ASTM C423 methodology norms. These tests are a next step to an optimization by simulation project previously done for the same client. The tests were performed February 28, 2020 in a reverberation chamber. As stated in the results summary, the methodology of scenario 1 or 2 below shows very concluding results

Scenario 1: Installation of T|Karra tiles with a minimum spacing of 6" between the joists and the suspended ceiling.



Scénario 2: Installation with compressed acoustic wool above the T|Karra tile.



2. Sommaire des résultats

Sound absorption coefficient of the suspended ceiling sample, tested according to the ASTM C423 norms with an E400 mounting.

Central frequency range of the band of 1/3 of an octave (Hz)	Absorption coefficient
200	0.67
250	0.74
315	0.79
400	0.70
500	0.64
630	0.91
800	0.82
1000	0.86
1250	0.79
1600	0.76
2000	0.69
2500	0.58
3150	0.56
4000	0.60
NRC	0.75

Central frequency range of the band of 1/3 of an octave (Hz)	T1	T2	T3	T4	T5
200	0.67	0.69	0.67	0.66	0.65
250	0.76	0.71	0.75	0.74	0.73
315	0.78	0.77	0.77	0.80	0.80
400	0.70	0.70	0.70	0.69	0.70
500	0.64	0.64	0.63	0.64	0.63
630	0.90	0.92	0.92	0.92	0.92
800	0.83	0.80	0.82	0.81	0.81
1000	0.86	0.85	0.86	0.85	0.86
1250	0.76	0.79	0.79	0.81	0.80
1600	0.78	0.76	0.76	0.76	0.75
2000	0.70	0.68	0.68	0.68	0.68
2500	0.60	0.59	0.58	0.57	0.57
3150	0.57	0.55	0.55	0.56	0.57

Overlapping of the sound absorption curves measured for each of the 5 tests

