

ACOUSTICS

The acoustics of an office, school or home environment have an enormous effect on our well-being. The right acoustics reduce the reverberation time in a room. This positively affects noise levels and the intelligibility of speech.

The unique structure of our Organic panels ensures a very positive effect on the acoustics of a room.

The open fibre structure absorbs a lot of the noise energy emitted, reducing reverberation time and the noise level in a room.

To assess the performance of our panels, we conducted thorough sound absorption tests for each type of Organic panel.

Three different setups were tested;

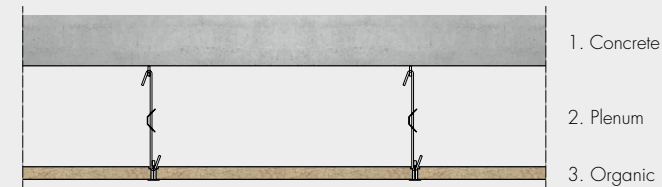
1. panels mounted directly on concrete,
2. with a plenum
3. with a plenum and extra insulation behind the panel.

DIRECT FIXING



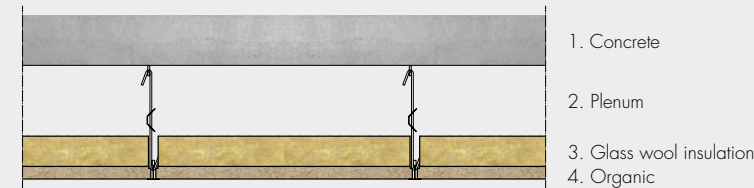
1. Concrete
2. Organic

PLENUM



1. Concrete
2. Plenum
3. Organic

PLENUM WITH INSULATION



1. Concrete
2. Plenum
3. Glass wool insulation
4. Organic

Panel type	125	250	500	1000	2000	4000	α_w	NRC	SAA	Report number
Mounted directly to concrete										
Organic 25	0.10	0.21	0.31	0.55	0.86	0.67	0.40	0.45	0.48	AC15-26055621
Organic 35	0.10	0.26	0.45	0.81	0.88	0.80	0.50	0.60	0.60	AC15-26055621
Organic Twin 25	0.10	0.36	0.70	0.93	1.05	1.03	0.65	0.75	0.76	AC12-26039552/1
Organic Twin 35	0.16	0.53	0.89	1.02	1.03	1.05	0.85	0.85	0.87	AC12-26039552/2
Organic Twin 50	0.20	0.65	1.05	1.05	1.00	0.90	0.95	0.90	0.94	AC09-26018151/2
Organic Mineral 50	0.20	0.55	1.10	1.05	0.90	1.00	0.85	0.90	0.90	AC12-26038902/1
Organic Mineral Authentic 50	0.10	0.60	1.00	0.85	0.75	0.95	0.80	0.80	0.80	AC18-26078299-2
Organic Mineral 75	0.35	0.90	1.15	1.00	0.90	0.95	1.00	0.95	0.99	AC05-103/15
Organic Mineral Authentic 75	0.35	1.00	1.00	0.85	0.80	0.90	0.85	0.90	0.91	AC18-26078299-2
Organic Mineral 100, Fibre	0.50	1.05	1.15	1.00	0.90	1.00	1.00	1.00	1.03	AC12-26038902/1
Organic Mineral Authentic 100	0.60	1.00	1.00	0.85	0.80	0.95	0.85	0.90	0.91	AC18-26078299-2
Plenum 50 mm										
Organic Twin 25	0.25	0.60	0.70	0.90	1.05	1.00	0.80	0.80	0.81	AC12-26039552/1
Organic Twin Authentic 25	0.25	0.60	0.75	0.85	0.95	0.90	0.80	0.75	0.79	AC18-26078299-3
Organic Twin 35	0.25	0.70	0.90	1.00	1.05	1.00	0.95	0.90	0.91	AC12-26039552/2
Organic Twin Authentic 35	0.30	0.65	0.80	0.95	0.95	0.85	0.85	0.80	0.84	AC18-26078299-3
Organic Mineral 50	0.31	0.82	1.12	1.07	0.93	1.01	1.00	0.95	0.99	AC05-103/14
Plenum 200 mm										
Organic 15	0.19	0.46	0.49	0.40	0.51	0.62	0.50	0.45	0.47	AC05-103/6
Organic 25	0.24	0.62	0.55	0.51	0.64	0.80	0.55	0.55	0.58	AC14-26050883/3
Organic Authentic 25	0.25	0.60	0.55	0.45	0.60	0.80	0.55	0.55	0.55	AC18-26078299-1
Organic 35	0.25	0.65	0.60	0.55	0.75	0.90	0.60	0.60	0.64	AC14-26050883/3
Organic Authentic 35	0.40	0.70	0.60	0.55	0.80	0.90	0.60	0.65	0.66	AC18-26078299-1
Organic Twin 25	0.35	0.45	0.65	0.95	1.05	1.00	0.70	0.75	0.78	AC12-26039552/1
Organic Twin Authentic 25	0.45	0.60	0.70	0.80	0.95	0.95	0.80	0.75	0.76	AC18-26078299-3
Organic Twin 35	0.45	0.65	0.85	1.00	1.10	1.05	0.90	0.90	0.90	AC12-26039552/2
Organic Twin Authentic 35	0.50	0.55	0.75	0.95	1.00	0.90	0.80	0.80	0.81	AC18-26078299-3
Organic Twin 50	0.40	0.70	0.95	1.05	1.00	0.95	0.95	0.90	0.93	AC09-26018151/2
Plenum 200 mm + 60 mm Glass wool insulation										
Organic 25	0.60	1.10	0.95	0.95	0.95	0.85	0.95	0.95	0.99	AC14-26050883/1
Organic Authentic 25	0.60	0.90	0.95	0.85	0.75	0.95	0.85	0.85	0.86	AC18-26078299-1
Organic 35	0.60	1.10	0.95	0.95	0.95	1.00	0.95	0.95	0.99	AC14-26050883/2
Organic Authentic 35	0.70	0.85	0.80	0.75	0.90	1.00	0.80	0.80	0.83	AC18-26078299-1