



Noise Control Optimizer

Acoustic Panel

Decorative Panel

The increasingly important aspect of speech quality in interior environment of buildings has led NCO™ to develop a comprehensive range of acoustical panel. From within our range of panels, it is possible to find a solution to virtually any acoustical interior situation. Particularly where aesthetics are as important as acoustic performance, architects and designers will find the range of veneers or paint finishes particularly attractive.

NCO™ TimberAcoustics offers high-performance, aesthetic and acoustical solutions, from wall to ceiling. The panel is being installed to effectively control noise in conference rooms, theatres, studio, restaurants, libraries, hotels and shopping centres.

TimberAcoustics panel has been tested in accordance with ASTM E1050 "Standard Test Method for Impedance and Absorption of Acoustical Materials using a tube, two microphones and a digital frequency analysis system"

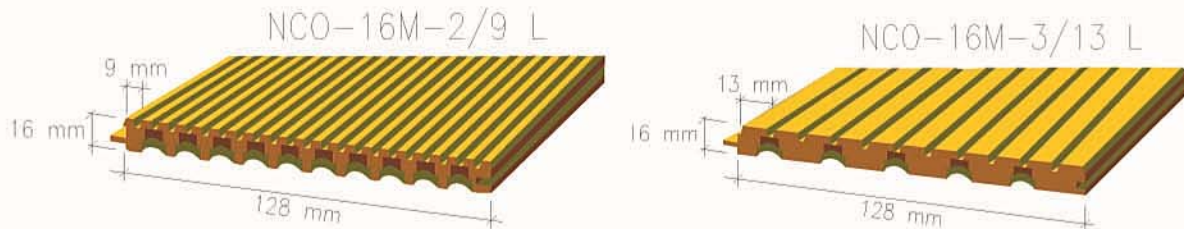


CHARACTERISTICS

	STANDARD	OPTIONAL	
SUBSTRATE	MDF	Particle Board	Plywood
THICKNESS	12 mm	10 mm	18 mm
PANEL FINISH	Veneer	Primer Paint	Wood Grain Paper
RANGE OF VENEER	Beech	Cherry	Maple Teak

Note: Please consult NCO for special finishes.

NCO™ TimberAcoustics Wood Strip has been designed with double-cut perforations for maximum sound absorption ability.



Performance (ASTM E1050):

Air Gap (mm)	Frequency (1/3 Octave)																
	125	160	200	250	315	400	500	630	800	1k	1.25k	1.6k	2k	2.5k	3.15k	4k	5k
25	0.00	0.04	0.07	0.11	0.17	0.27	0.42	0.62	0.87	0.99	0.86	0.70	0.65	0.55	0.53	0.45	0.50
38	0.01	0.04	0.11	0.19	0.31	0.49	0.72	0.91	0.99	0.88	0.7	0.57	0.52	0.46	0.48	0.47	0.49
50	0.01	0.07	0.16	0.28	0.46	0.68	0.89	0.99	0.94	0.79	0.61	0.5	0.45	0.42	0.43	0.44	0.4
25+Infill*	0.06	0.08	0.1	0.14	0.2	0.28	0.4	0.6	0.82	0.96	0.93	0.84	0.75	0.68	0.62	0.58	0.59
38+Infill*	0.09	0.14	0.2	0.28	0.41	0.59	0.8	0.93	0.95	0.88	0.77	0.72	0.73	0.62	0.58	0.54	0.58
50+Infill*	0.18	0.24	0.35	0.46	0.67	0.86	0.93	0.93	0.87	0.8	0.73	0.68	0.67	0.59	0.56	0.54	0.59



NCO™ TimberAcoustics Perforated Wood Panel has been tested for different holes spacing and hole diameter for obtaining the optimal frequencies in sound absorption.



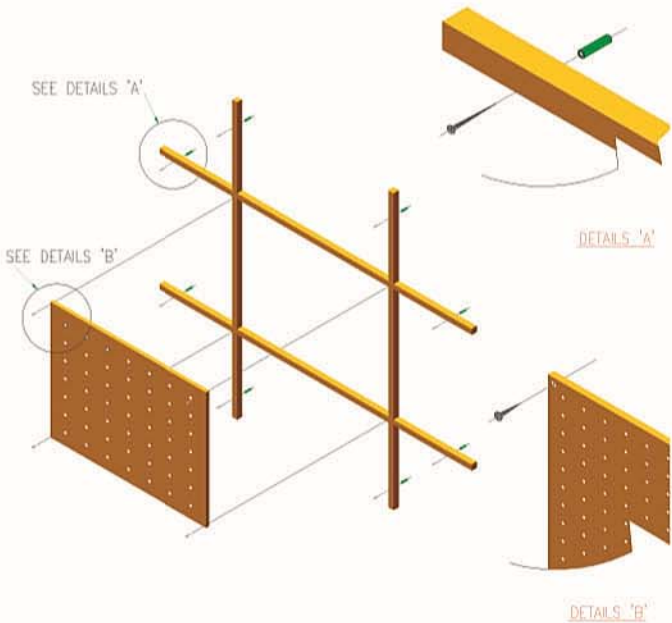
Attractive surface with high acoustic absorption ability

A wide choice of veneer finishes

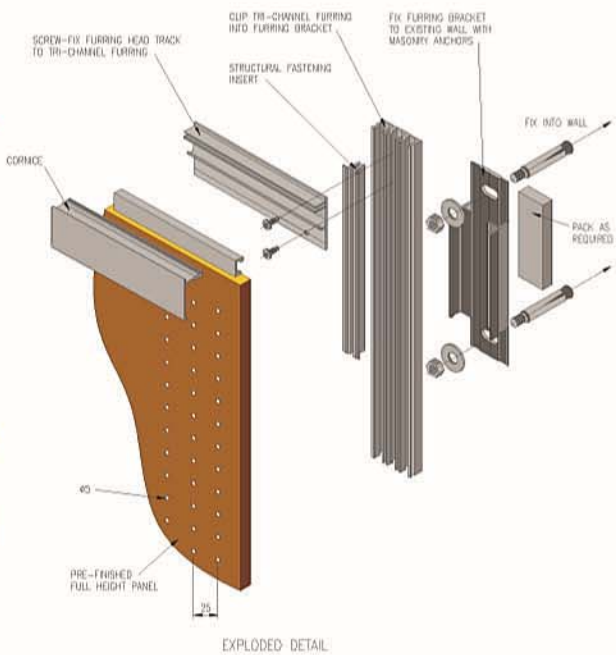
A wide variety of holes spacing and diameters



Possible Fixing Methods are available by NCO™ :



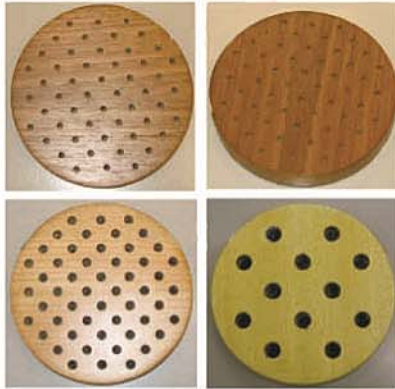
Conventional Fixing using Wood Batten



New Fixing using Futurewall™ Wall System



Perforated Wood Panels



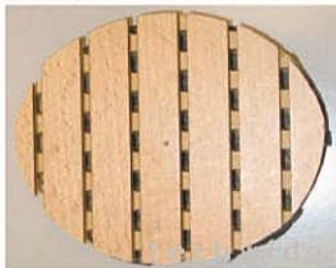
Centre Distance	Hole Diameter in mm		
	3	5	8
12	4.9%	13.6%	-
16	1.9%	7.7%	-
24	-	3.4%	8.7%
32	-	1.9%	4.9%

Performance (ASTM E1050):

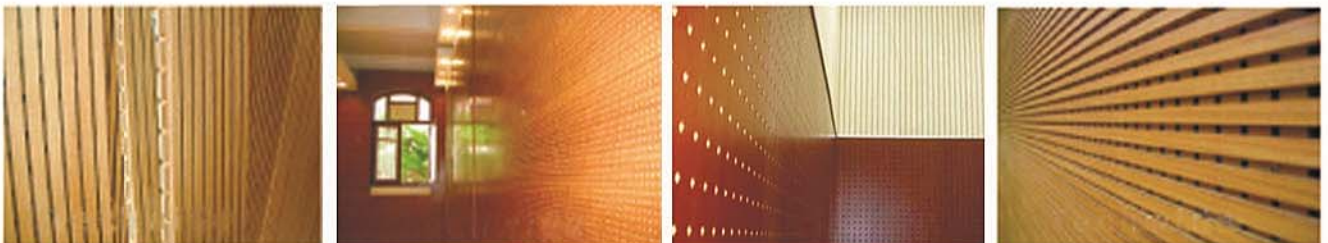
Air Gap (mm)	Frequency (1/3 Octave)														
	63	80	100	125	160	200	250	315	400	500	630	800	1k	1.25k	1.6k
25	0.00	0.07	0.05	0.04	0.07	0.12	0.16	0.24	0.35	0.50	0.72	0.91	0.92	0.79	0.66
38	0.00	0.10	0.02	0.07	0.11	0.18	0.27	0.40	0.56	0.74	0.90	0.93	0.83	0.68	0.57
50	0.00	0.00	0.00	0.13	0.18	0.29	0.40	0.56	0.72	0.86	0.94	0.88	0.76	0.62	0.53
25+Infill*	0.00	0.02	0.06	0.07	0.12	0.18	0.24	0.34	0.48	0.62	0.77	0.87	0.84	0.75	0.67
38+Infill*	0.07	0.11	0.06	0.15	0.21	0.30	0.41	0.54	0.68	0.78	0.84	0.82	0.76	0.67	0.62
50+Infill*	0.00	0.00	0.11	0.26	0.26	0.42	0.54	0.66	0.76	0.80	0.80	0.78	0.71	0.66	0.62



Wood Strip with groove



Groove Distance	Groove Width in mm		
	3	4	8
10	-	-	8.7%
13	4.9%	5.2%	-
28	-	3.4%	-



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