

AMORIM CORK INSULATION

AIRBORNE NOISE TRANSMISSION

Source	Test	Constructive system	Rw [dB]	Frequency [Hz]																	
				100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
SLABS AND CEILING																					
ICB STANDARD																					
Preceram	ACL177/14	Slab 210mm + airbox 200mm + false ceiling (plasterboard) 12,5mm + ICB 40mm	64 (-5;-10;-4;-10)	51,50	42,20	37,40	46,00	56,50	59,20	64,40	67,30	70,40	70,90	71,20	73,50	79,60	73,60	75,70	80,40	80,60	78,80
Preceram	ACL179/14	Slab 210mm + airbox 200mm + false ceiling (plasterboard) 12,5mm + ICB 40mm	66 (-6;-11;-5;-11)	55,80	45,50	38,30	46,00	57,50	61,90	67,30	71,00	74,00	73,20	71,70	73,20	73,60	73,80	76,70	80,80	80,90	78,90
Preceram	ACL183/14	Slab 210mm + Floating slab 70mm + airbox 200mm + false ceiling (plasterboard) 12,5mm + ICB 40mm	70 (-7;-12;-6;-12)	51,00	46,60	41,10	53,80	64,10	69,30	72,40	73,30	73,40	72,70	72,50	73,30	75,00	75,40	76,60	78,30	78,70	77,60
CORKOCO																					
ACI	FEUP_2004	Massive slab 140mm + airbox 350mm + Corkoco 1+1 (40mm) + false ceiling (plasterboard) 13mm	58 (-2;-9)	31,80	40,50	38,50	42,50	47,40	50,90	56,90	60,00	62,80	68,20	72,10	74,20	79,20	80,40	80,00	75,50	76,20	67,00
MDFACADE WAVE																					
ACI	ACL177/19	Pointcloud (Concrete slab with 140mm + false ceiling with 12,5mm plasterboard + Pointcloud 50mm)	71 (-3;-8;-2;-8)	54,50	46,70	53,20	54,70	62,90	67,80	70,00	73,10	73,90	76,00	76,80	74,40	74,40	73,80	74,80	75,10	75,20	75,60
WALLS																					
ICB STANDARD																					
Preceram	ACU101_12	Thermal brick 24cm + plaster 15mm por face + ETICs with ICB 60mm	54 (-2;-5;-1;-5)	47,80	40,50	35,10	41,00	42,10	47,60	49,80	49,30	51,30	53,10	55,90	59,30	62,20	59,00	61,40	65,70	64,00	55,20
Preceram	ACU254_11	Single wall with brick 22cm + plaster 15mm on both sides + ICB 40mm + plasterboard 12,5mm	56 (-3;-7;-2;-7)	37,00	37,70	36,90	38,20	44,10	46,10	52,30	55,80	59,70	63,50	64,70	67,70	67,70	62,60	61,10	64,10	64,10	57,70
Preceram	ACU255_11	Single wall with brick 22cm + plaster 15mm on both sides + ICB 40mm + plasterboard 2x12,5mm	59 (-2;-7;-2;-7)	38,80	43,10	41,90	41,70	48,20	49,30	55,40	57,50	61,20	63,70	65,10	67,70	67,90	64,70	64,20	63,40	65,40	55,40
Preceram	ACU260_11	Double wall with brick 15x11cm + airbox 4cm + plaster 15mm on both sides + ICB 40mm + plasterboard 12,5mm	59 (-2;-7;-2;-7)	43,70	37,30	38,50	47,20	49,50	50,30	52,80	55,80	60,20	65,40	67,60	70,10	70,70	70,00	69,00	68,60	64,30	54,30
Preceram	ACU261_11	Double wall with brick 15x11cm + airbox 4cm + plaster 15mm on both sides + ICB 40mm + plasterboard 2x12,5mm	61 (-2;-7;-3;-7)	44,80	37,70	41,50	49,70	52,30	54,10	54,90	58,20	61,00	66,40	68,70	70,60	70,80	70,10	68,80	68,60	64,00	54,30
Preceram	ACU262_11	Plasterboard 12,5mm + airbox + Plasterboard 12,5mm + ICB 40mm + Plasterboard 12,5mm	39 (-3;-8;-2;-8)	22,70	18,30	17,50	21,90	28,60	31,50	37,80	40,90	45,80	48,90	52,50	55,80	57,60	56,50	48,20	48,10	53,10	55,50
ACI	ACU431/12	ICB board 120mm	21 (-1;-3;-0;-3)	18,00	15,10	13,90	13,30	13,90	12,40	12,60	15,10	18,70	24,50	23,60	24,50	23,00	24,00	27,60	31,00	33,90	70,70
ACI	ACU432/12	ICB board 120mm + OSB4 board 18mm	34 (-2;-6;-1;-6)	24,40	20,10	19,20	18,30	20,80	22,00	26,70	31,90	35,80	41,70	43,30	40,40	39,00	41,70	48,20	52,00	55,40	55,90
ACI	ACU433/12	ICB board 120mm + Plasterboard 12,5mm	33 (-1;-5;-0;-5)	24,10	20,10	18,50	17,60	20,20	20,80	25,00	30,50	35,20	42,20	46,60	47,10	47,50	49,30	49,60	49,80	54,60	56,40
ACI	ACU022/06	Double wall with brick 15x11cm + airbox 5cm with ICB 40mm + plaster 20mm on both sides	53 (-1;-4)	40,70	39,20	42,80	40,90	44,90	45,00	47,00	49,30	49,90	49,90	51,70	54,20	58,10	59,10	61,40	63,70	67,40	68,10
LAMBOURDE																					
Preceram	ACU251_11	Single wall with brick 22cm + plaster 15mm on both sides + Lambourde 40mm + plasterboard 2x12,5mm	49 (-1;-5;-0;-5)	42,60	39,90	36,20	34,10	35,80	38,00	41,10	45,90	50,80	54,60	58,20	62,10	62,40	62,40	59,10	61,00	67,10	64,20
Preceram	ACU252_11	Single wall with brick 22cm + plaster 15mm on both sides + Lambourde 60mm + plasterboard 12,5mm	54 (-2;-7;-1;-7)	40,00	38,00	36,30	35,90	41,20	43,60	49,20	53,40	57,70	60,50	63,40	66,70	66,20	66,90	63,20	69,20	65,10	58,60
Preceram	ACU253_11	Single wall with brick 22cm + plaster 15mm on both sides + Lambourde 60mm + plasterboard 2x12,5mm	55 (-2;-6;-1;-6)	38,70	39,10	37,30	37,80	41,90	45,60	50,80	58,40	58,60	60,70	62,80	66,30	67,00	68,00	65,00	65,30	66,10	57,70
Preceram	ACU256_11	Double wall with brick 15x11cm + airbox 4cm + plaster 15mm on both sides + Lambourde 40mm + plasterboard 12,5mm	56 (-1;-5;-0;-5)	42,20	38,70	38,80	43,50	43,60	46,30	49,40	53,30	57,90	64,40	67,10	70,60	72,20	72,30	71,50	71,20	67,00	58,30
Preceram	ACU257_11	Double wall with brick 15x11cm + airbox 4cm + plaster 15mm on both sides + Lambourde 40mm + plasterboard 2x12,5mm	59 (-2;-7;-3;-7)	43,50	37,40	40,50	45,60	47,00	50,60	53,60	57,00	60,10	67,20	69,40	71,60	72,70	72,50	71,70	71,30	66,50	57,60
Preceram	ACU258_11	Double wall with brick 15x11cm + airbox 4cm + plaster 15mm on both sides + Lambourde 60mm + plasterboard 12,5mm	56 (-2;-6;-1;-6)	39,90	36,50	38,70	43,20	45,20	44,70	48,90	54,30	58,60	65,60	68,90	72,00	72,70	72,60	72,60	72,30	66,70	58,60
Preceram	ACU259_11	Double wall with brick 15x11cm + airbox 4cm + plaster 15mm on both sides + Lambourde 60mm + plasterboard 2x12,5mm	59 (-2;-7;-1;-7)	40,60	37,20	41,60	45,20	47,30	49,30	53,90	57,80	60,50	66,70	70,00	72,40	72,80	72,90	72,20	72,00	66,40	58,20
CORK GRANULES																					
ACI	ACU024/06	Double wall with 15x11cm + airbox 5cm filled with granulate	51 (-2;-6)	33,50	35,10	35,00	38,90	39,40	43,20	44,90	46,10	48,60	50,50	52,50	56,00	58,40	60,50	63,00	66,20	68,90	70,40
MDFACADE WAVE																					
ACI	ACL174/19	Pointcloud (Single brick wall with 150mm + plaster 15mm on both sides + Pointcloud 50mm)	43 (-1;-3;-0;-3)	33,10	33,10	39,20	33,40	34,50	36,60	37,90	39,40	41,10	41,50	43,00	44,50	43,50	45,60	46,20	47,00	49,90	53,60
CORKOCO																					
ACI	ITECONS 22/12/2004	Single wall with brick 11cm + plaster on both sides + Corkoco 1+1 (40mm) + plasterboard 13mm	55																		
ACI	ITECONS 08/03/2005	Double wall with brick 15x11cm + plaster on both sides + airbox with Corkoco 1+1 (40mm)	53																		
ACI	ACI002-18	Single wall with brick 20cm + plaster on both sides + Corkoco 2A+1C (40mm) + Plasterboard 12,5mm	56 (-3;-9;-3;-9)	33,70	32,80	38,10	36,40	46,40	48,90	55,30	56,80	59,50	61,10	62,90	67,50	68,20	68,00	65,00	65,20	65,00	62,40
COCONUT FIBER																					
ACI	ITECONS 08/05/2006	Partition wall with Fermacell 12,5+12,5mm + airbox with Coconut Fiber 40mm (total 100mm)	48																		
ACI	ITECONS 11/05/2006	Partition wall with Fermacell 12,5+10mm + airbox with Coconut Fiber 40mm (total 100mm)	56																		
MDFACADE																					
ACI	ITECONS 144/14	Single wall + plaster on both sides + MDFacade 60mm	47 (-1;-2;-0;-2)	50,50	36,40	40,80	44,80	43,30	42,50	44,20	45,60	46,20	43,20	43,80	47,70	52,60	55,10	55,60	57,20	61,90	
ACI	ITECONS 169/21	Single wall brick 70mm + plaster on both sides + plasterboard 12,5mm + MDFacade 40mm	42 (-1;-4;-0;-4)	31,50	27,50	27,40	30,20	31,00	34,00	37,20	38,80	40,90	42,40	44,00	44,60	43,70	45,50	51,00	56,40	56,70	57,00
ACI	ITECONS 146/14	Single wall + plaster on both sides + MDFacade 100mm	49 (-3;-3;-0;-3)	50,00	37,90	40,90	45,70	41,60	44,40	42,70	43,70	43,80	45,80	46,90	50,30	53,30	53,60	54,40	57,10	60,10	59,40