



DURALINE BLUE

plasterboards

Plasterboards of silence

✓ apartments ✓ hotels ✓ offices ✓ schools

AIRBORNE SOUND INSULATION REQUIREMENTS INSIDE ADJACENT DWELLINGS INSIDE BUILDINGS

Excerpt of standard MSZ 15601-1:2007

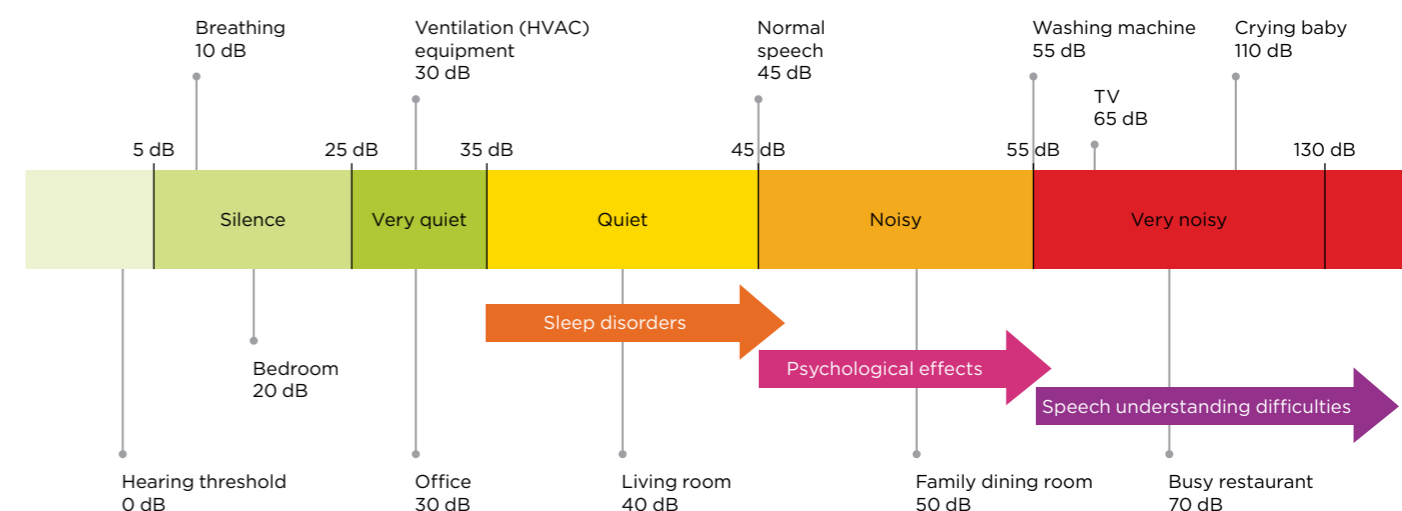
Building type	Room/dwelling interface	Noisy room, structure subject to acoustic load	Room to be protected against noise	Airborne sound insulation			
				Basic requirement for typical buildings		Increased requirement in high-demand building	
				R' _w +C dB field	R _w +C dB lab	R' _w +C dB field	R _w +C dB lab
MULTIDWELLING RESIDENTIAL BUILDINGS	Adjacent apartments	Any room of the apartment	Any room of adjacent apartment	51		54	
	Apartment and passway area (staircase, corridor, exterior corridor)	Staircase, corridor, hallway wall	Any room of adjacent apartment		51		54
	Apartment and cellar, attic, storage room, common areas	Attic, cellar, storage room, common area wall	Any room of the apartment	51			54
OFFICE BUILDINGS	Rooms of an office unit	Office unit	Adjacent office unit ⁽¹⁾	37		42	
		Office unit	Conference room, meeting room ⁽¹⁾	42		47	
		Bathroom, toilet, kitchenette	Office unit	42		47	
	Rooms and passways of an office unit	Staircase, corridor, hallway wall	Office unit		37		42
		Staircase, corridor, hallway wall	Meeting room, conference room		42		47
	Rooms of separate office units	Office room	Adjacent office room, conference/meeting room		51		54
Bathroom, toilet, kitchenette		Office room		51		54	
Rooms and passways of separate office units	Common staircase, corridor, hallway wall	Office room, meeting room		51		54	
HEALTHCARE BUILDINGS	Treatment rooms	Treatment room	Adjacent treatment room	43		48	
	Treatment room and passway	Staircase, corridor, hallway wall	Treatment room		43		48
	Treatment room and attic, cellar, storage room	Attic, cellar, storage room	Treatment room		50		53
ACCOMMODATION BUILDINGS GROUP I: three-star or higher class hotel (spa hotel, resort hotel), hospital wards, sanatorium accommodation	Accommodation (room, bathroom)	Adjacent accommodation (room, bathroom)		47		52	
	Staircase, corridor, hallway wall	Accommodation (room, bathroom)			47		52
ACCOMMODATION BUILDINGS GROUP II: two-star or lower class hotel (spa hotel, resort hotel), social care facility, work hostel, student hostel, foster home	Accommodation (room, bathroom)	Adjacent accommodation (room, bathroom)		43		48	
	Staircase, corridor, hallway wall	Accommodation (room, bathroom)			43		47
NURSERIES, KINDERGARTENS, EDUCATIONAL FACILITIES	Classroom, lecture room, workshop, office, staff room	Adjacent classroom, lecture room, workshop, office, staff room		45		48	
	Bathroom, toilet, kitchen	Classroom, lecture room, workshop, staff room, office		45		48	
	Staircase, corridor, hallway wall	Classroom, lecture room, workshop, staff room, office			45		48
	Attic, cellar, storage room	Classroom, lecture room, workshop, staff room, office			45		48

(1) The requirement for adjacent rooms applies to cases where there is no door in the wall separating two rooms.

ACOUSTIC COMFORT

Acoustic comfort means low levels of noise. Higher levels of noise are harmful to our bodies. The human pain threshold is 140 decibels, higher noise levels can cause hearing impairment. It is not just one-off exposures to high levels that can cause injury, but long-term exposure to a noisy environment as well.

SOUND VOLUMES OF HUMAN ACTIVITIES AND LOUDNESS ZONES



Low noise levels within a room can be ensured by selecting the right soundproofing structures to prevent the propagation of unwanted ambient noise:

1. Silence zone: noise exposure up to 20 dB
2. Quiet zone: noise exposure up to 35 dB
3. Adequate zone: noise exposure up to 45 dB

Rigips® soundproofing plasterboard structures offer solutions for building a living and working environment with appropriate acoustic comfort.

DURALINE BLUE DB AND DBI PLASTERBOARDS

The Duraline Blue soundproofing plasterboard is a state-of-the-art development by Rigips. By using Duraline Blue plasterboards, partition wall structures can provide a higher sound insulation value while maintaining the same structural thicknesses.

The **Duraline Blue DB** board is an excellent solution for the constructions of delimiting structures in offices, hotel rooms and apartments with increased comfort levels.

The **Duraline Blue DBI** plasterboard has been developed to provide a solution for structures with increased soundproofing and fireproofing requirements, **also in rooms with periodically high humidity**. For partition walls built with Duraline Blue DBI plasterboard, it is also possible to install larger tiles than previously allowed. By using Duraline Blue plasterboards, the fire resistance limit of the structures is the same as those built with fire-retardant plasterboards.



DURALINE BLUE DB SOUNDPROOFING AND FIRE-RETARDANT PLASTERBOARD



The Duraline Blue DB plasterboard is an excellent solution for building structures with low structural thickness that have high soundproofing and fire-retardant characteristics.

Recommended fields of application:

- ✓ suspended ceilings, wall linings, partition walls in new apartments
- ✓ partition walls, suspended ceilings in renovated apartments
- ✓ partitions separating rooms, suspended ceilings, wall linings of hotel rooms
- ✓ increased sound-insulating and impact resistant structures of cultural institutions and commercial buildings

TECHNICAL CHARACTERISTICS

DURALINE BLUE	
Applicable standard:	MSZ EN 520
Allowed relative humidity:	up to 70%
Thickness:	12.5 mm
Weight:	12.2 kg/m ²
Thermal conductivity:	0.25 W/m.K
Maximum temperature:	+50 °C
Reaction to fire class:	(MSZ EN 13501-2) A2-s1,d0
Vapour resistance factor:	(μ) 10
Type according to EN 520:	DFRI

DURALINE BLUE IMPREGNATED DBI SOUNDPROOFING, FIRE-RETARDANT AND IMPREGNATED PLASTERBOARD



The Duraline Blue DBI plasterboard has been developed to provide a solution for structures with increased soundproofing and fireproofing requirements, also in rooms with periodically high humidity.

Recommended fields of application:

- ✓ bathroom construction in apartments: suspended ceilings, wall linings, partitions
- ✓ bathroom renovation: wall linings, suspended ceilings
- ✓ hotel bathrooms: partition walls, suspended ceilings
- ✓ cultural institution and commercial building restrooms
- ✓ hospital restrooms and showers

TECHNICAL CHARACTERISTICS

DURALINE BLUE DBI	
Applicable standard:	MSZ EN 520
Allowed relative humidity:	up to 80%
Thickness:	12.5 mm
Weight:	12.2 kg/m ²
Thermal conductivity:	0.25 W/m.K
Maximum temperature:	+50 °C
Reaction to fire class:	(MSZ EN 13501-2) A2-s1,d0
Vapour resistance factor:	(μ) 10
Surface water absorption:	up to 180 g/m ²
Type according to EN 520:	DFRIH2

DURALINE PARTITIONS (SOUND INSULATION RESULTS ACCORDING TO THE STUDY)

Weighted sound reduction index: Rw	Short marking: Profile size/wall thickness	Partition details: board type and thickness	Wall height if CW studs spacing: 60 cm field of application		Wall height in case of fire resistance	Reaction to fire class and fire resistance (in ETA)	Insulation: thickness/type		System certificate according to ETA-17/0730	Sound insulation: Rw (Rw+C)*** according to MODO EXPERT STUDY	NR. in the study
			I. m*	II. m*			[mm]	type			

46 - 56 dB PARTITIONS WITH ONE LAYER OF PLASTERBOARD ON A SIMPLE STUD.

WALL WEIGHT APPROX. 26 KG/M ² .											
	CW 50/75	2x Duraline Blue 12,5	3	2,75	3	A2 EI 30	50	Isover Akusto	A6	46 (41)	1.
	CW 75/100	2x Duraline Blue 12,5	4,5	3,75	3	A2 EI 30	50	Isover Akusto	A22	54 (49)	2.
	CW 100/125	2x Duraline Blue 12,5	5	4,25	3	A2 EI 30	100	Isover Akusto	A41	56 (52)	3.

59 - 68 dB PARTITIONS WITH TWO LAYERS OF BLUE ACOUSTIC PLASTERBOARD ON A SIMPLE STUD.

WALL WEIGHT APPROX. 60 KG/M ² .											
	CW 50/100	2x2 Duraline Blue 12,5	4	3,5	4	A2 EI 90	50	Isover Akusto	B6	59 (55)	4.
	CW 75/125	2x2 Duraline Blue 12,6	5,5	5	4	A2 EI 90	75	Isover Akusto	B26	64 (61)	5.
	CW 100/150	2x2 Duraline Blue 12,7	6,5	5,75	4	A2 EI 90	100	Isover Akusto	B47	68 (65)	6.

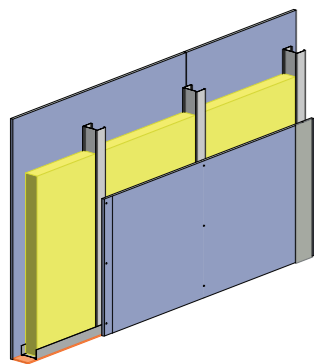
56 - 62 dB PARTITIONS WITH TWO LAYERS OF PLASTERBOARD (NORMAL + BLUE ACOUSTIC) ON A SIMPLE STUD.

WALL WEIGHT APPROX. 60 KG/M ² .											
	CW 50/100	2x (RB 12,5 + Duraline Blue 12,5)"	4	3,5			50	Isover Akusto		56 (52)	7.
	CW 75/125	2x (RB 12,5 + Duraline Blue 12,5)	5,5	5	3	A2 EI 60	75	Isover Akusto	B25	59 (56)	8.
	CW 100/150	2x (RB 12,5 + Duraline Blue 12,5)	6,5	5,75			100	Isover Akusto		62 (60)	9.

68 - 76 dB PARTITIONS WITH TWO LAYERS OF BLUE ACOUSTIC PLASTERBOARD ON A DOUBLE STUD.

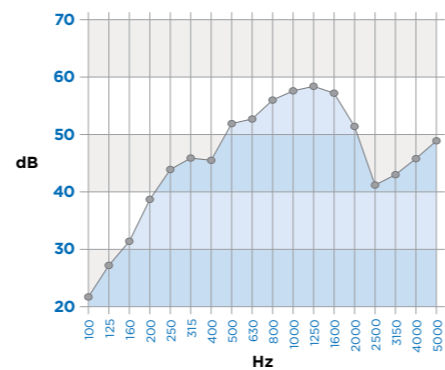
WALL WEIGHT APPROX. 60 KG/M ² . THE DOUBLE STUD FRAME IS FASTENED WITH PLASTERBOARD FIXING STRAPS.											
	CW 50+50/-	2x2 Duraline Blue 12,5	4,5	4	3	A2 EI 90	2x50	Isover Akusto	E7	68 (65)	10.
	CW 75+75/-	2x2 Duraline Blue 12,5	6	5,5	3	A2 EI 90	2x75	Isover Akusto	E13	74 (71)	11.
	CW 100+100/-	2x2 Duraline Blue 12,5	6,5	6			2x100	Isover Akusto		76 (74)	12.

* **Field of application I:** Low occupancy spaces, e.g. apartments, offices, hospitals, including corridors.
Field of application II: Higher occupancy spaces, e.g. meeting rooms, school rooms, auditoriums, exhibition and conference venues. Also where the floor level difference between adjacent rooms is greater than 1 metre.
** The wall height allowed for the specified fire resistance is based on European Technical Assessment ETA -17/0730.
*** C - spectrum adjustment factor - to be applied for the following noises and noise sources: normal residential use of apartment (speech, listening to music, children playing, etc.); medium and high speed rail traffic; road traffic on motorways.

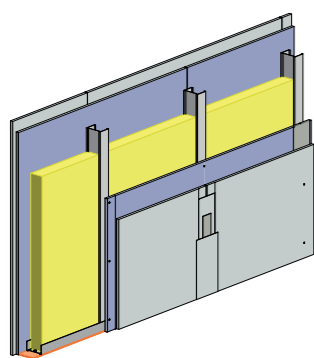


CW 75/100 PARTITIONS WITH 2X1 LAYERS OF DURALINE BLUE 12.5 PLASTERBOARD

Short notation:	CW 75/100	
Profile size/wall thickness (mm)	CW 75/100	
Layer order:	Duraline Blue 12.5	
Wall height:	field of application I.*	4.5 m
with frame spacing of 60 cm	field of application II.*	3.75 m
	fireproofing**	3 m
Mineral wool used:	Isover Akusto 75 mm	
Fire resistance: EI (min)	EI 30	
Weighted air sound reduction index:	Rw (C) dB 47 (44)	

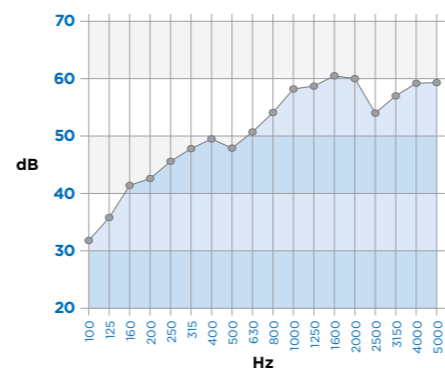


f (Hz)	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	Rw	Rw+C
R (dB)	21.7	27.2	31.4	38.7	43.9	45.9	45.5	51.9	52.7	56.0	57.6	58.4	57.2	51.4	41.2	43.0	45.8	48.9	47	44



CW 75/125 PARTITIONS 2 (RB 12.5 + DURALINE BLUE 12.5) PLASTERBOARDS

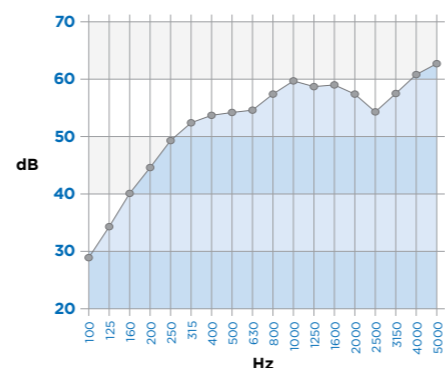
Short notation:	CW 75/125	
Profile size/wall thickness (mm)	CW 75/125	
Layer order:	2 (RB 12.5 + Duraline Blue 12.5)	
Wall height:	field of application I.*	5.5 m
with frame spacing of 60 cm	field of application II.*	5 m
	fireproofing**	3 m
Mineral wool used:	Isover Akusto 75 mm	
Fire resistance: EI (min)	EI 60	
Weighted air sound reduction index:	Rw (C) dB 54 (-2)	



f (Hz)	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	Rw	Rw+C
R (dB)	31.8	35.8	41.4	42.6	45.6	47.8	49.5	47.9	50.7	54.1	58.2	58.7	60.5	60	54	57	59.2	59.3		

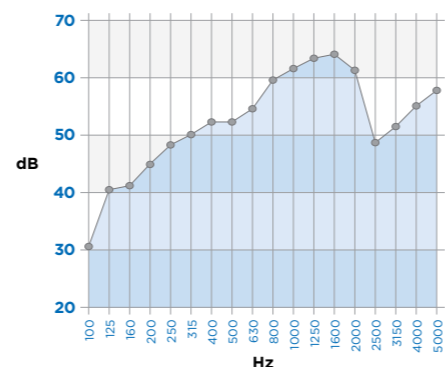
CW 50/100 PARTITIONS 2X2 DURALINE BLUE 12.5 PLASTERBOARD

Short notation:	CW 50/100	
Profile size/wall thickness (mm)	CW 50/100	
Layer order:	2x2 Duraline Blue 12.5	
Wall height:	field of application I.*	4 m
with frame spacing of 60 cm	field of application II.*	3.5 m
	fireproofing**	4 m
Mineral wool used:	Isover Akusto 50 mm	
Fire resistance: EI (min)	EI 60	
Weighted air sound reduction index:	Rw (C) dB 55 (-3)	

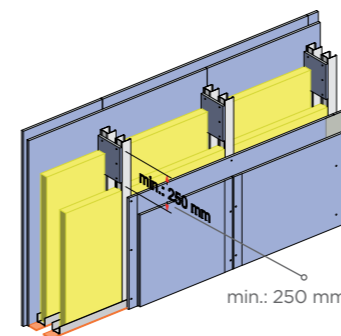


CW 75/125 PARTITIONS 2X2 DURALINE BLUE 12.5 PLASTERBOARD

Short notation:	CW 75/125	
Profile size/wall thickness (mm)	CW 75/125	
Layer order:	2x2 Duraline Blue 12.5	
Wall height:	field of application I.*	5.5 m
with frame spacing of 60 cm	field of application II.*	5 m
	fireproofing**	4 m
Mineral wool used:	Isover Akusto 75 mm	
Fire resistance: EI (min)	EI 90	
Weighted air sound reduction index:	Rw (C) dB 55 (-3)	

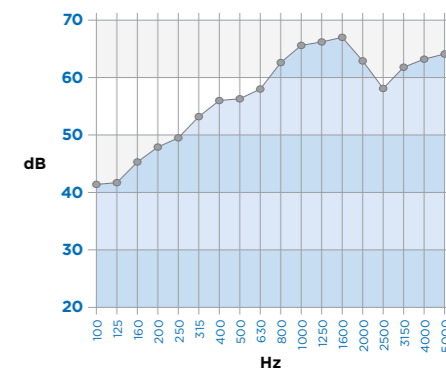


f (Hz)	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	Rw	Rw+C
R (dB)	28.9	34.3	40.1	44.6	49.3	52.4	53.7	54.2	54.6	57.4	59.7	58.7	59	57.4	54.3	57.5	60.8	62.7		
R (dB)	30.6	40.5	41.2	44.9	48.3	50.1	52.3	52.3	54.6	59.6	61.6	63.4	64.1	61.3	48.7	51.5	55.1	57.8		



CW 50+50/200 PARTITIONS, DOUBLE PROFILE 2X2 DURALINE BLUE 12.5 PLASTERBOARD

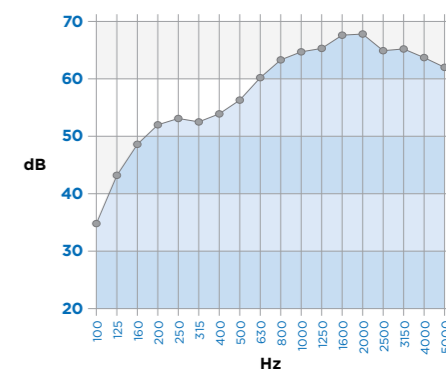
Short notation:	CW 50+50/200 stud fastened with plasterboard strips on each metre, 5 cm airgap	
Profile size/wall thickness (mm)	CW 50+50/200 stud fastened with plasterboard strips on each metre, 5 cm airgap	
Layer order:	2x2 Duraline Blue 12.5	
Wall height:	field of application I.*	4.5 m
with frame spacing of 60 cm	field of application II.*	4 m
	fireproofing**	3 m
Mineral wool used:	2 x Isover Akusto 50 mm	
Fire resistance: EI (min)	EI 60	
Weighted air sound reduction index:	Rw (C) dB 60 (-2)	



f (Hz)	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	Rw	Rw+C
R (dB)	41.4	41.7	45.3	47.9	49.5	53.2	56	56.3	58	62.2	65.6	66.2	67	62.9	58.1	61.8	63.2	64.1		

CW 75+50/200 PARTITIONS, DOUBLE PROFILE 3 DURALINE BLUE 12.5 + 2 RB NORMAL PLASTERBOARD

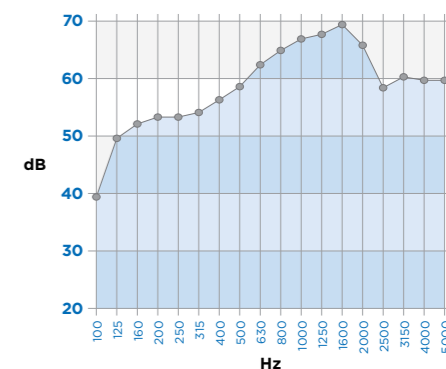
Short notation:	CW 75+50/200 double stud, 1.25 cm airgap, with the middle 5th plasterboard layer fastened to the CW 50 stud	
Profile size/wall thickness (mm)	CW 75+50/200 double stud, 1.25 cm airgap, with the middle 5th plasterboard layer fastened to the CW 50 stud	
Layer order:	3 Duraline Blue 12.5 + 2 RB 12.5 normal plasterboard	
Wall height:	field of application I.*	4.5 m
with frame spacing of 60 cm	field of application II.*	4 m
	fireproofing**	3 m
Mineral wool used:	Isover Akusto 75 + 50 mm	
Fire resistance: EI (min)	EI 90	
Weighted air sound reduction index:	Rw (C) dB 61 (-2)	



f (Hz)	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	Rw	Rw+C
R (dB)	41.4	41.7	45.3	47.9	49.5	53.2	56	56.3	58	62.2	65.6	66.2	67	62.9	58.1	61.8	63.2	64.1		

CW 75 + 50/200 PARTITIONS, DOUBLE PROFILE 5 DURALINE BLUE 12.5 PLASTERBOARDS

Short notation:	CW 75+50/200 double stud, 1.25 cm airgap, with the middle 5th plasterboard layer fastened to the CW 50 stud	
Profile size/wall thickness (mm)	CW 75+50/200 double stud, 1.25 cm airgap, with the middle 5th plasterboard layer fastened to the CW 50 stud	
Layer order:	5 Duraline Blue 12.5	
Wall height:	field of application I.*	4.5 m
with frame spacing of 60 cm	field of application II.*	4 m
	fireproofing**	3 m
Mineral wool used:	Isover Akusto 75 + 50 mm	
Fire resistance: EI (min)	EI 120	
Weighted air sound reduction index:	Rw (C) dB 62 (-2)	



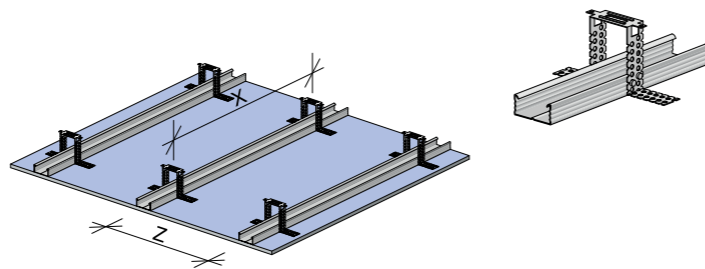
f (Hz)	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	Rw	Rw+C
R (dB)	39.4	49.6	52.1	53.3	53.3	54.1	56.3	58.6	62.4	64.9	66.9	67.7	69.4	65.8	58.4	60.3	59.7	59.7		

SUSPENDED CEILING WITH DURALINE BLUE BOARDS

The construction of suspended ceilings in bathrooms is becoming increasingly common. Our buildings are expected to meet higher standards than before. The suspended ceiling space can be used to route cables, concealed lighting and has high quality acoustic performance to provide quiet environment.

Rigips® suspended ceilings on single profile

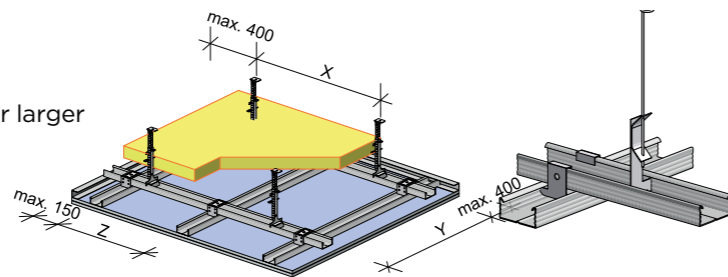
- ✓ can be installed with small suspension depth
- ✓ electrical wiring can be routed in the space above the suspended ceiling
- ✓ improves the sound insulation values of the ceiling
- ✓ suitable for installing concealed lighting
- ✓ can also be installed as decorative ceiling element



Partition details: board type and thickness	Profile type/size	Distance of CD studs: Z	Spacing of supporting stud frame: Y	Hanger type	Hanger spacing: X	Mineral wool used - Isover Akusto: thickness	Reaction to fire class and fire resistance	Sound reduction index: Rw	Feasible max. suspension depth
[mm]	[mm]	[mm]	[mm]		[mm]	[mm]	EI [min]	[dB]	[mm]
RIGIPS® SUSPENDED CEILING MOUNTED ON SIMPLE STUD FRAME WITH STEEL BEAM OR REINFORCED CONCRETE CEILING									
Duraline Blue 12.5 ^a	CD 27/60	400	-	direct hanger	1000	50	A2 REI 30	5 - 10 dB reduction value	50-230
RIGIPS® SUSPENDED CEILING MOUNTED ON SIMPLE STUD FRAME WITH WOOD, STEEL BEAM OR REINFORCED CONCRETE CEILING									
Duraline Blue 12.5	CD 27/60	400	-	direct hanger	1000	2x50	A2 REI 30	5 - 10 dB reduction value	50-230

Rigips® suspended ceilings on double profile

- ✓ can be installed with high suspension depth
- ✓ the space above the suspended ceiling can be used for larger diameter cables, HVAC and mechanical equipment
- ✓ improves the sound insulation values of the ceiling
- ✓ suitable for installing concealed lighting
- ✓ can also be installed as decorative ceiling element



Partition details: board type and thickness	Profile type/size	Distance of CD studs: Z	Spacing of supporting stud frame: Y	Hanger type	Hanger spacing: X	Mineral wool used - Isover Akusto: thickness	Reaction to fire class and fire resistance	Sound reduction index: Rw	Feasible max. suspension depth
[mm]	[mm]	[mm]	[mm]		[mm]	[mm]	EI [min]	[dB]	[mm]
RIGIPS® SUSPENDED CEILING MOUNTED ON DOUBLE STUD FRAME WITH STEEL BEAM OR REINFORCED CONCRETE CEILING									
Duraline Blue 12.5	CD 27/60	400	1000	vernier	850	50	A2 REI 30	12 - 15 dB reduction value	150-3000
2 x Duraline Blue 12.5 ^b	CD 27/60	400	1000	vernier	750	50	A2 REI 60	12 - 15 dB reduction value	150-3000

dB TEST RESULTS

- a 59** ✓ Suspended ceiling on simple CD stud using direct hangers with **1 layer Duraline Blue 12.5** board and 50 mm Isover Akusto insulation, under 12 cm thick reinforced concrete ceiling has **Rw (Rw + C) = 59(57) dB** sound reduction value.
- b 60** ✓ Suspended ceiling on double CD stud using vernier hangers with **2 layer Duraline Blue 12.5** board and 50 mm Isover Akusto insulation, under 12 cm thick reinforced concrete ceiling has **Rw (Rw + C) = 60(59) dB** sound reduction value.

FIRE PROTECTIVE MEMBRANE

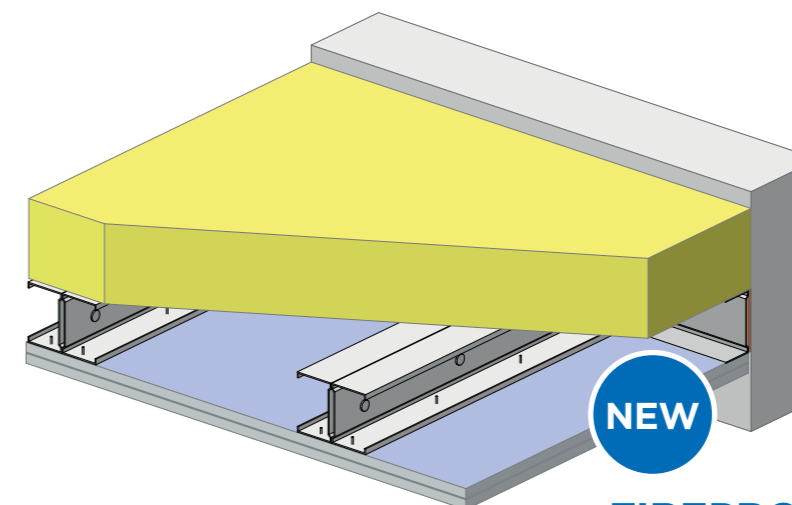
The fire protective membrane is an excellent solution for fire protection of ceiling slabs where it is not permitted to fasten load to the slab. The self-supporting suspended ceiling without suspension is made with Duraline Blue plasterboards and a double CW 75 Rigiprofil stud frame. It is also a solution when fire protection and sound insulation must be achieved in one structure.



FIRE RESISTANCE:
EI 30 - without insulation



FIRE RESISTANCE:
EI 45 - with insulation



FIREPROOFING TEST RESULTS!

FIRE PROTECTIVE MEMBRANE

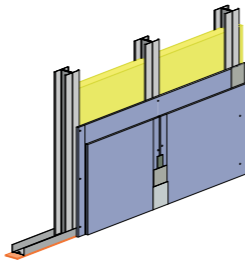
Maximum span: **4.15 m**

Partition details: board type and thickness	Applied Rigiprofil types and installation method	Distance of studs	Insulation: thickness/type	Reaction to fire class and fire resistance
[mm]		[mm]	[mm]	[mm]
2 x Duraline Blue DB 12.5	CW 75 double stud frame	400	-	A2 EI 30
2 x Duraline Blue DB 12.5	CW 75 double stud frame	400	Isover Akuplat 100 mm	A2 EI 45

SHAFT WALLS AND WALL LININGS WITH DURALINE BLUE BOARDS

Shaft wall

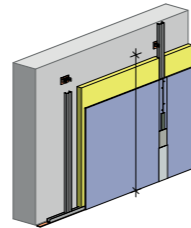
- ✓ single-sided installation, mainly for fire protection purposes of machinery shafts
- ✓ has independent sound insulation value
- ✓ can be installed up to a height of 6 metres
- ✓ the vertical CW profiles are bolted together to install
- ✓ suitable for cladding/tiling



Short marking: Profile size / wall thickness	Partition details: board type and thickness	Wall height if CW studs spacing: 60 cm field of application		Wall height in case of fire resistance	Reaction to fire class and fire resistance	Insulation: thickness/density		System certificate according to ETA-17/0730	Weighted sound reduction index: Rw (Rw+C)
		I. m*	II. m*			[mm]	kg/m ³		
[mm]	[mm]			[m]**	EI [min]	[mm]		CODE	[dB]
CW 50/62.5	Duraline Blue 12.5	5	4.5	3	A2 EI 15	50	50	H12	35 (34)
CW 50/75	2x Duraline Blue 12.5	6	5.5	3	A2 EI 30	50	50	H14	40 (38)

Wall lining with adjustable brackets and CD profile

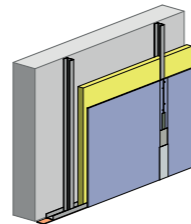
- ✓ dependant structure
- ✓ the application enables good sound insulation improvement with low structural thickness (12-15 dB)
- ✓ the adjustable brackets are fastened to the wall structure with 900 mm spacing



Short marking: Profile size / wall thickness	Partition details: board type and thickness	Wall height if CW studs spacing: 60 cm field of application	Wall height in case of fire resistance	Reaction to fire class and fire resistance	Mineral wool used: thickness/density		System certificate according to ETA-17/0730	Weighted sound reduction index: Rw (Rw+C)
					[mm]	type		
[mm]	[mm]	[m]	[m]**	EI [min]			KÓD	[dB]
CD 27/60	Duraline Blue 12.5	up to 10 (depends on console structure)	3	A2 EI 15	-		K7	-
CD 27/60	Duraline Blue 12.5	up to 10 (depends on console structure)	3	A2 EI 15	50	Isover Akusto	K 7	55 (53) ^c
CD 27/60	2x Duraline Blue 12.5	up to 10 (depends on console structure)	3	A2 EI 30	-		K8	-

Independent wall lining

- ✓ the application enables good sound insulation improvement (12-15 dB)
- ✓ versatile application in renovations
- ✓ storage space can be built when constructed till half-height



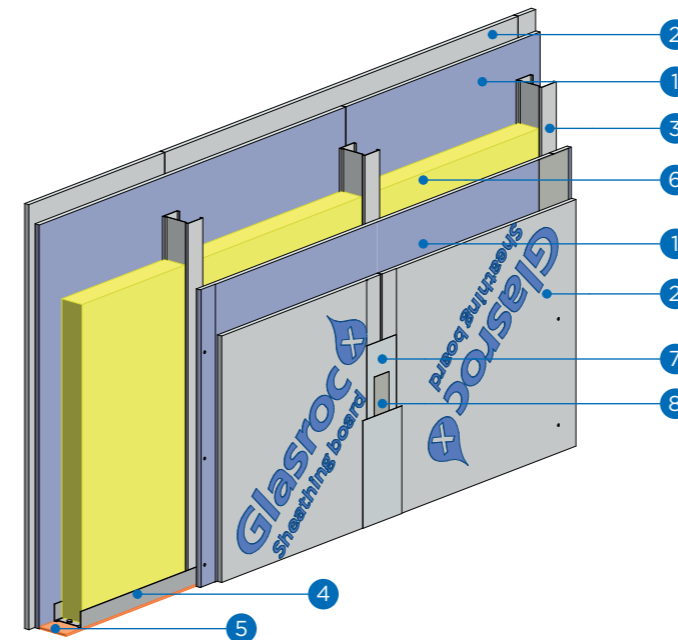
Short marking: Profile size / wall thickness	Partition details: board type and thickness	Wall height if CW profile spacing: 60 cm field of application		Reaction to fire class and fire resistance	Mineral wool used: thickness/density		System certificate according to ETA-17/0730	Weighted sound reduction index: Rw (Rw+C)
		I. m*	II. m*		[mm]	type		
[mm]	[mm]			EI [min]	[mm]		CODE	[dB]
CW 75/100	2 Duraline Blue 12.5	3.5	2.75	A2 EI 30	75	Isover Akusto	Test result	56 (55) ^d

dB TEST RESULTS

- ^c 55** ✓ Wall linings with adjustable brackets installed on CD 27/60 studs with 1 layer Duraline Blue 12.5 board and 50 mm Isover Akusto insulation, in front of 10 cm Ytong wall has **Rw (Rw + C) = 55(53) dB** sound reduction value.
- ^d 56** ✓ CW 75/100 independent wall linings installed on CD 75 studs with 2 layers of Duraline Blue 12.5 board and 75 mm Isover Akusto insulation, in front of 10 cm Ytong wall has **Rw (Rw + C) = 56(55) dB** sound reduction value.

DURALINE BLUE AND GLASROC X PARTITION WALLS

REACTION TO FIRE: A1
FIRE RESISTANCE: EI 120



A1 EI 120

FEASIBLE WALL HEIGHT 4 METRES

Legend

1. Duraline Blue DB plasterboard
2. Glasroc® X sheathing board
3. R-CW 75 Rigiprofil
4. R-UW 75 Rigiprofil
5. Acoustic tape for profile
6. Mineral wool insulation
7. Vario joint filler
8. Jointing reinforcement glass tape

PARTITION INSTALLED ON SIMPLE PROFILE WITH DURALINE BLUE DB PLASTERBOARD AND GLASROC® X SHEATHING BOARD / REACTION TO FIRE: A1

Short marking: Profile size/ wall thickness	Partition details: board type and thickness	Distance of CW studs	Wall height	Fire resistance	Insulation: thickness/type		Sound insulation:
					[mm]	tipus	
[mm]	[mm]	[mm]	[m]	EI [min]	[mm]		Rw(Rw+C)
CW 75/125	2 x (Duraline Blue DB 12.5 + Glasroc® X 12.5)	300	7	EI 30	75	Isover Akusto	-
CW 75/125	2 x (Duraline Blue DB 12.5 + Glasroc® X 12.5)	600	5	EI 90	75	Isover Akusto	56 (52)
CW 75/125	2 x (Duraline Blue DB 12.5 + Glasroc® X 12.5)	600	4	EI 120	75	Isover Akusto	56 (52)

DURALINE BLUE DB AND GLASROC® X COMPONENTS



Duraline Blue DB
plasterboard

Glasroc® X
sheathing board

Rigiprofil
stud frame:
R-UW and R-CW

Vario
joint filler

Jointing
reinforcement
glass tape

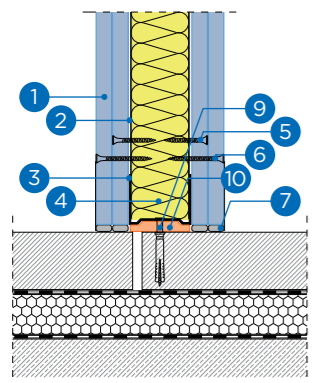
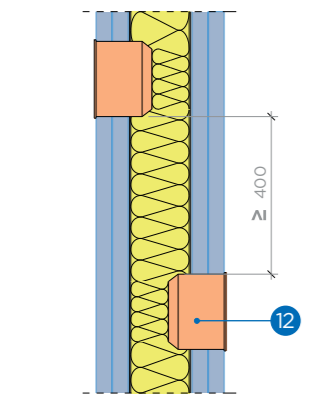
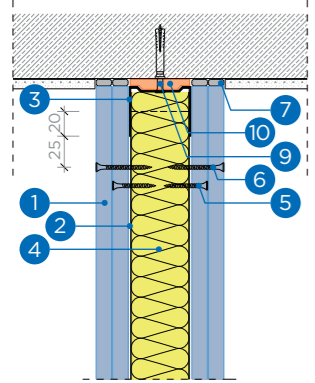
Acoustic tape
for profile

HartFix
screws

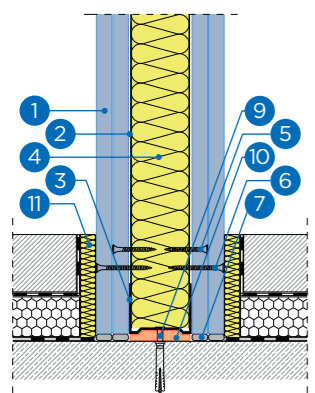
Nail
dowel

CONSTRUCTION DETAILS OF SOUND INSULATION STRUCTURES

CONNECTION OF INSTALLED WALL TO RAW CEILING SLAB:

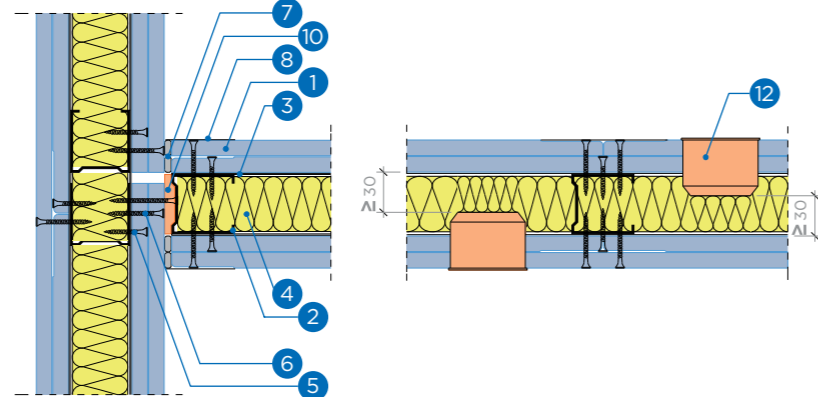


CONNECTION OF INSTALLED WALL TO THE FLOOR



BASE CONNECTION OF INSTALLED WALL TO RAW CEILING SLAB

T- JUNCTION OF INSTALLED WALL, WITH BREAK OF THE PLASTERBOARD CLADDING



Installation requirements for sound insulation structures:

- ✓ Acoustic tape for profile shall be bonded to the profile installed at the perimeter of the structure.
- ✓ The required mineral wool insulation shall be applied over the entire area.
- ✓ When measuring sound insulation, the distance between CW profiles in the partition walls was 60 cm.
- ✓ The generation of any 'acoustic bridge' in the structure shall be avoided. At wall connections and L/T-nodes, the plasterboard covering shall be interrupted as shown in the diagrams.
- ✓ Installed wall connections to floor shall be made by breaking the concrete base. The final floor covering shall be installed after the partition wall has been constructed or, if this is not possible, the floor covering shall be interrupted.
- ✓ In case of base connections of installed wall to raw ceiling slab: 'soles' need to be installed in the plasterboard structure. This means that a layer to prevent moisture leakage must be incorporated, as well as a soundproofing layer. After the (composition) floor layer is finished, the plasterboard sole must be removed and the plasterboard covering must be started from the slab, about 1 cm above.
- ✓ Joining the installed wall to the raw ceiling slab should preferably be done by interruption of the the plastered surface.
- ✓ When filling gaps, care should be taken to fill the gaps completely with the filler material.
- ✓ The number of penetrations should be kept to a minimum. At penetrations, efforts shall be made to wrap mineral wool insulation around penetrations. Mineral wool insulation material of 100-110 kg/m³ can be used for this purpose.
- ✓ Electrical junction boxes shall not be located on opposite sides of the wall facing each other.
- ✓ Junction boxes shall be positioned in the horizontal section of the partition so that there is always a vertical CW profile between two boxes. In the vertical direction, the distance between electrical junction boxes shall be at least 400 mm.

Legend

Cladding	Screws	
1. Duraline Blue 12.5 plasterboard	5. 212/25 fixing screw	9. Fastening to supporting structure
	6. 212/35 fixing screw	10. Acoustic tape for profile
Profile frames	Joint filling	11. Moisture leakage barrier layer
2. CW profile	7. Super or Vario joint filler	12. Electrical junction boxes
3. UW profile	8. Plastered jointing reinforcement glass tape	
4. Mineral wool insulation		

DURALINE BLUE PLASTERBOARD FINISHING

Paint:

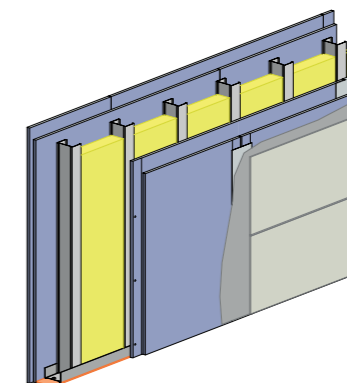
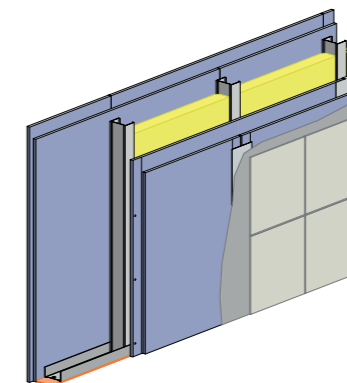
- ✓ For excellent surface quality, we recommend Q4 surface preparation, which minimises any unevenness of the boards and gaps.
- ✓ To reduce and level the absorbency of the surface, the surfaces of gap-filled and sanded boards should be treated with Rigips primer (Rikombi-Grund).
- ✓ It is recommended to paint with aqueous thinner (dispersion) paint, which is air and vapour permeable.
- ✓ Paint with a roller or spray gun. Do not use lime, silicate, water glass paints.
- ✓ Painting must be carried out according to the manufacturers' instruction manuals.

Tiling onto Duraline Blue DBI boards

The requirements of tiling Duraline Blue DBI plasterboard are the same as for general plasterboard cladding, but the dense gypsum core allows the use of larger tiles than previously possible.

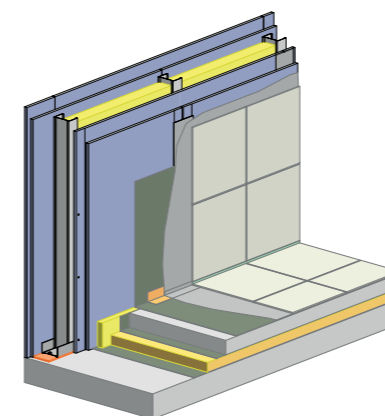
Layering of partition walls suitable for 330x330x7 mm ceramic tiles:

- ✓ For a standard 60 cm profile spacing, the partition wall should be constructed using at least 2x2 layers of plasterboard.
- ✓ In case of space constraints, when it is not possible to use two layers of cladding, the profile frames in the partition wall must be built with the closer spacing of 40 cm.
- ✓ In both cases, Duraline Blue DBI boards are used directly under the tiles. Additional plasterboards in the order of layers are selected with taking into account fire protection and air sound insulation considerations.



Layering of partition walls suitable for 330x660x8 mm ceramic tiles:

- ✓ Partition wall with 30 cm profile spacing and 2x2 layers of Duraline Blue DBI 12.5 plasterboard



For ceramic tiles, the upper layer of plasterboard under the tiling is not joint-filled with joint filler, the joints must also be filled with flexible tile adhesive. Where affected by splashing water (e.g. basin, shower) a waterproofing layer shall be applied before tiles are installed. If the layer under the tiles is joint-filled with joint filler, the entire surface should be treated with Rikombi-Grund primer before tiling to ensure even adhesion.

WHAT CAN YOU DO IF YOUR NEIGHBOUR IS TOO NOISY?

People living in apartment buildings often face the problem that their neighbours are too noisy. It can also happen that members of the same household have different daily rhythms which can cause inconvenience.

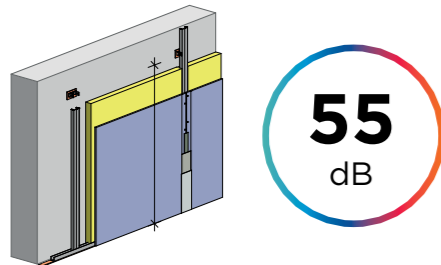
WHAT CAN BE DONE? THE SOUND INSULATION OF YOUR APARTMENT COULD BE UPGRADED WITH RIGIPS® SYSTEMS. OUR HIGH QUALITY SOLUTIONS CAN BE CONSTRUCTED IN ANY BUILDINGS AND PROVIDE YOU WITH SILENCE EVEN IN NOISY ENVIRONMENTS.



BUILDING DURALINE BLUE WALL LININGS TO IMPROVE THE ACOUSTIC PERFORMANCE OF THE EXISTING WALLS

Sound Insulation of a 10 cm width aerated concrete wall: 40 dB

WALL LINING WITH ADJUSTABLE BRACKETS AND R-CD RIGIPROFIL WITH 1 LAYER OF DURALINE BLUE PLASTERBOARD



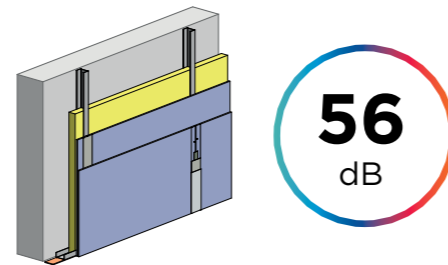
55
dB

- ✓ enables high sound insulation improvement with low structural thickness
- ✓ R-CD 27/60 profile with 1 layer of Duraline Blue plasterboard
- ✓ a R-CD profiles mounted on the wall with adjustable brackets in every 900 mm
- ✓ Insulation: 50 mm Isover Akusto

Wall height: max. 10 m
Wall lining widths: 6 cm



INDEPENDENT WALL LINING WITH 2 LAYERS OF DURALINE BLUE PLASTERBOARD



56
dB

- ✓ enables high sound insulation improvement with low structural thickness even if direct attachment to the wall is not allowed
- ✓ Independent structure
- ✓ R-CW 75 profile with 2 layer Duraline Blue plasterboard
- ✓ Insulation: 75mm Isover Akusto

Wall height: max. 3 m
Wall lining widths: 10 cm



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