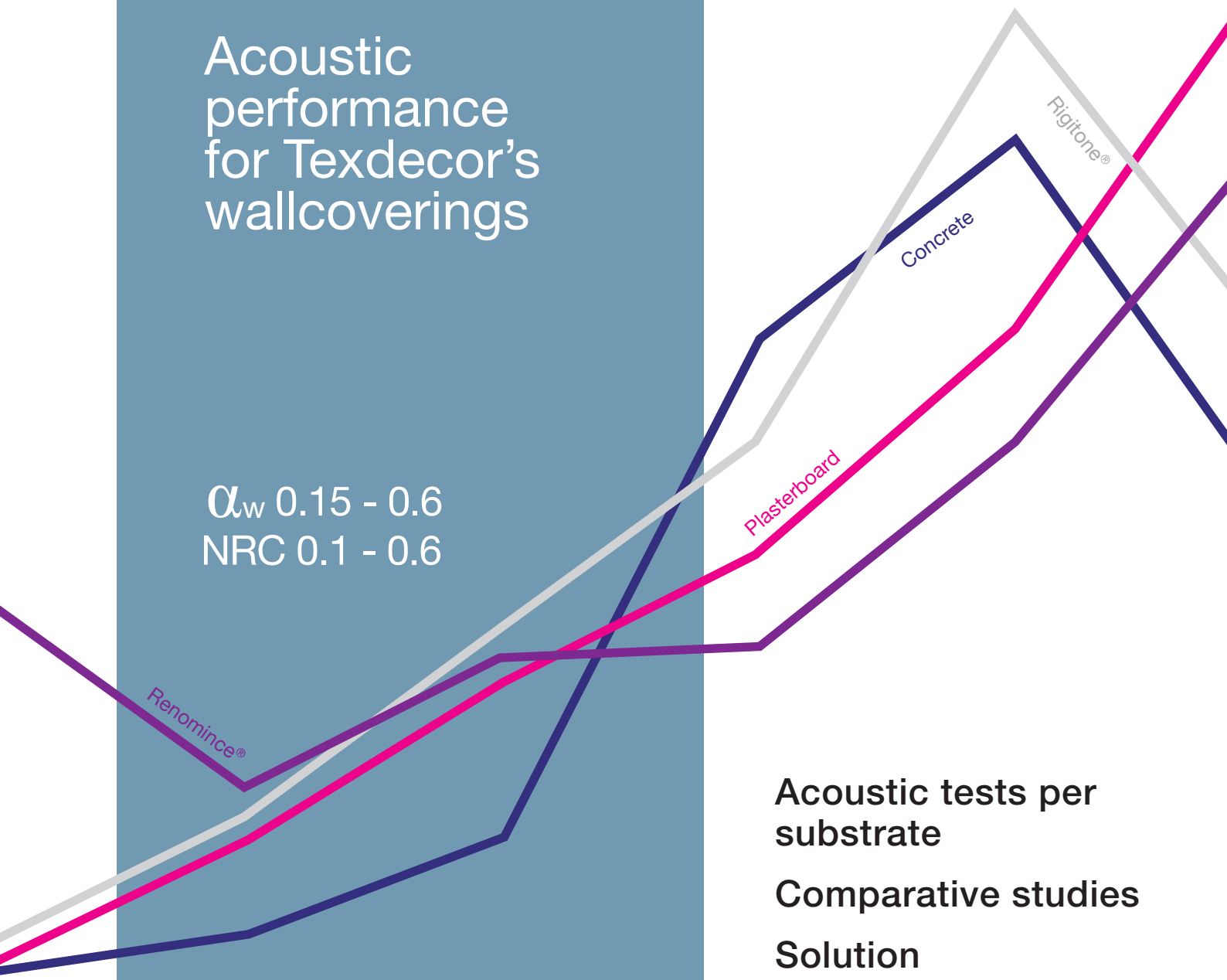
texdecor

WALLCOVERINGS

Acoustic performance for Texdecor's wallcoverings

α_w 0.15 - 0.6
NRC 0.1 - 0.6



Acoustic tests per substrate

Comparative studies

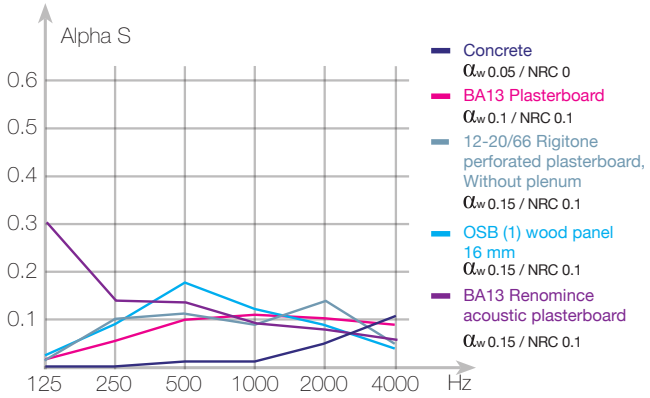
Solution recommendations

Curves per type of wallcovering

α_w 0.05 - 0.15 / NRC 0.1

Compact vinyls

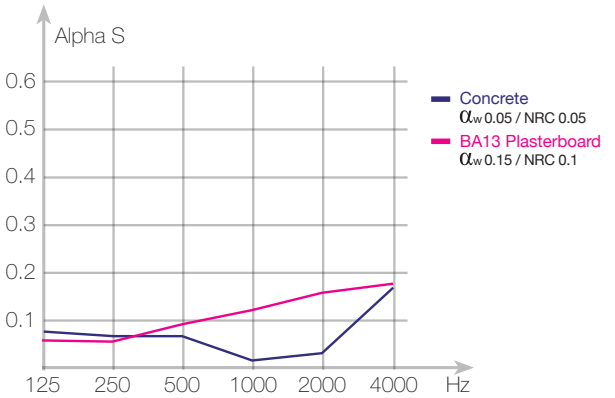
Vinyl collections
Decoration ranges & Material



- The compact vinyl is a dense, fine and non-porous material : it has no acoustic properties
- Only the quality of the substrate influences the result of the complex
- According to the Acoustic Measurements Guide, the lowest acoustic to be considered to calculate the equivalent absorption area of common circulation spaces : αW 0.1
- (1) While the wood panel is acoustically favourable with the wall covering, this theoretical installation, it cannot be built : it does not correspond to a standard building substrate and no wallcovering will reach the fire-resistant classification required for public buildings

Vinyl foams

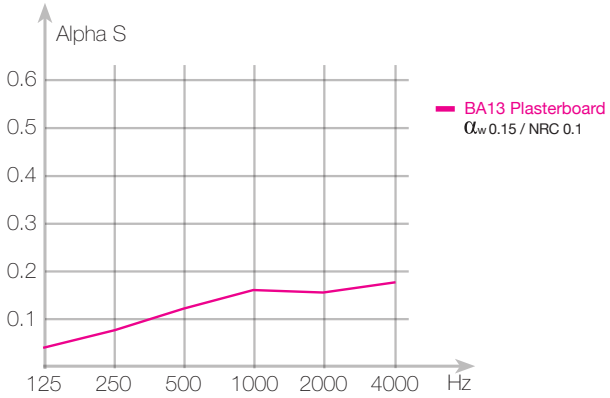
Quickmousse collection
Acoustic range 0.3



- Although the vinyl foam is blocked on the surface, it is made of very fine air bubbles : it absorbs the waves, mainly those in the medium and high frequencies

Non-woven layer

Soft collection
Decoration range

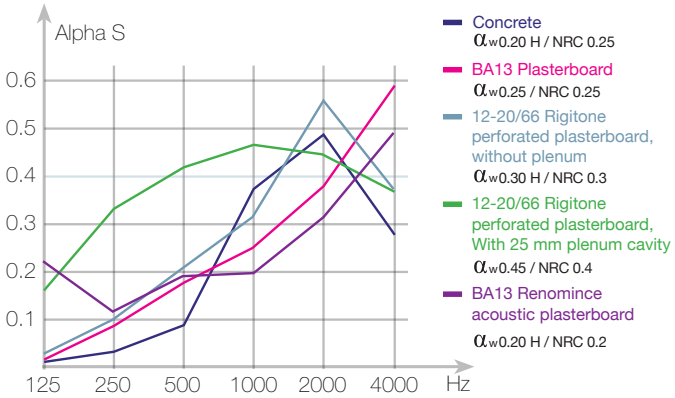


- The layer made of non-woven fibres is porous. Its thickness and the quality of the acrylic printing inks provide a modest absorption of medium to high frequencies

α_w 0.2 - 0.6 / NRC 0.2 - 0.6

Micro-perforated vinyl coating on acoustic fleece

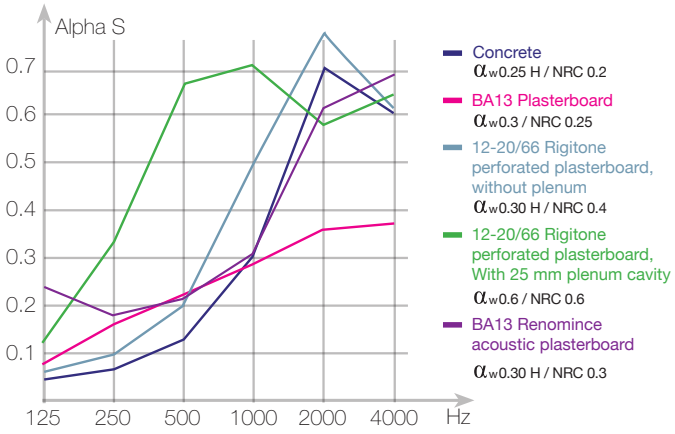
Vinacoustic collections
Acoustic range 0.3



- The 3 layers of this coating make it the most soundproof vinyl on the market :
  - Surface : compact micro-perforated vinyl lets the wavelengths pass through (mainly medium and high frequencies)
  - Intermediary layer : perforated vinyl foam, acts as a shock absorber / spring
  - Under - layer : acoustic fleece absorbs sound energy
- The weight and density of the wall covering provides good performance levels in medium and high frequencies
- Its composition acts favourably with the substrate perforated plasterboard : αW 0.45 / NRC 0.4

Micro-perforated textile on PU acoustic foam

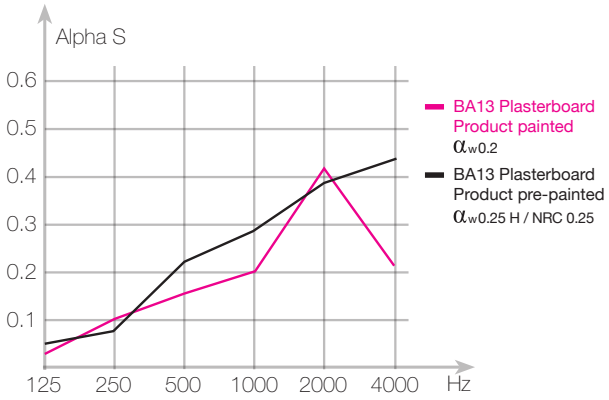
Eos collections
Acoustic range 0.3



- Wallcoverings made of 2 absorbent materials :
  - Surface : micro-perforated suede textile, porous and absorbent
  - PU foam with open, very absorbent cells
- The porosity and low density of the 'sandwich' make it efficient on low frequencies
- The perforated plasterboard + plenum combination gives strong acoustical property : αW 0.45 / NRC 0.6

Fibreglass paint for acoustic fleece

Acoustiglass collection
Acoustic range 0.3

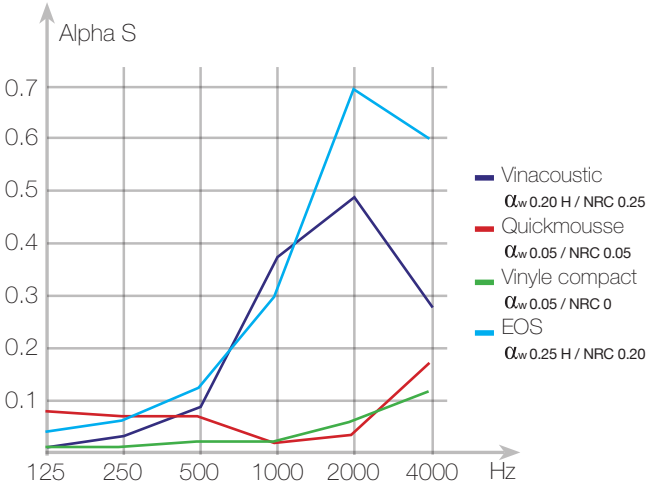


- The wallcoverings comes pre-dyed, αW 0.25 / NRC 0.25 after 2 coats of acrylic paint, the surface becomes more blocked and therefore less absorbent
- To assess and compare the existing products on this market, make sure that the acoustic test is carried out with a paint coating (2 coats), adapted to the use

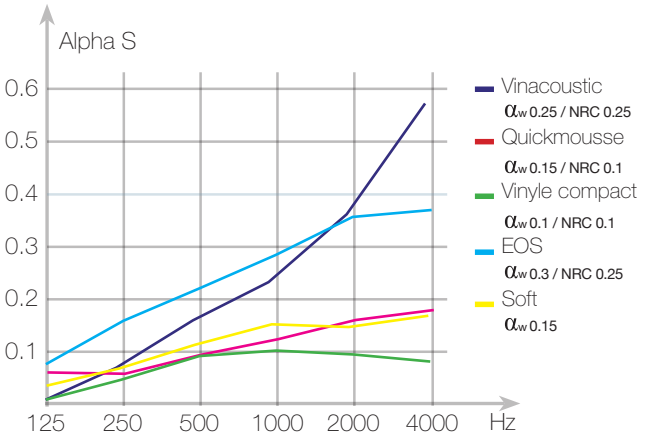
Curves by type of substrate

A detailed reading of the test reports will let you know what type of substrate has been used :
It has to comply with acoustical requirement of the project

Concrete



BA13



Wood

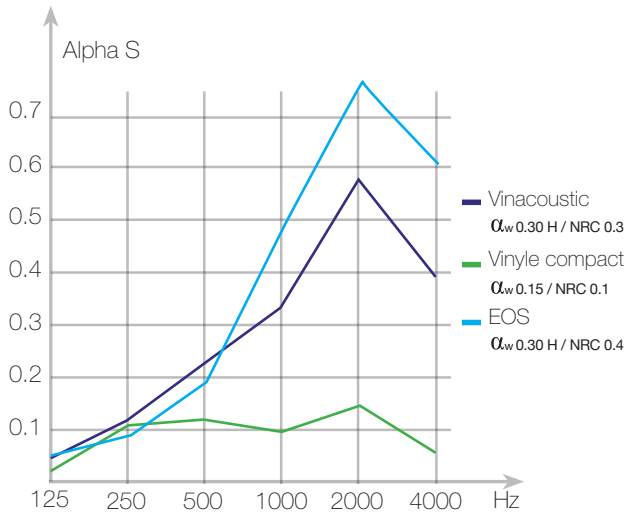
Bad practices can make your project non-compliant :

Wooden substrates, OSB or MDF panels are not standard building substrates for wall surfaces. Furthermore, with these materials, no wall covering can meet the fire-resistant classification necessary for public buildings

The assembly is acoustically favourable for some market players suggest that non-absorbent wallcoverings such as compact vinyl, can be used to artificially reach the result of αW 0.15/ NRC 0.1

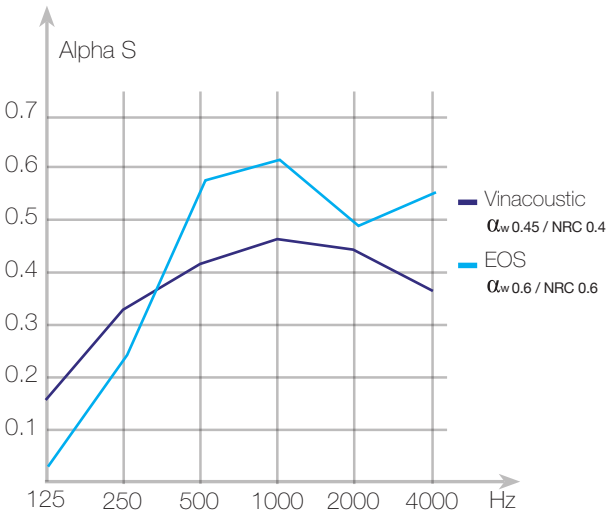
Perforated plasterboard

Rigitone® 12-20/66 without plenum



Perforated plasterboard

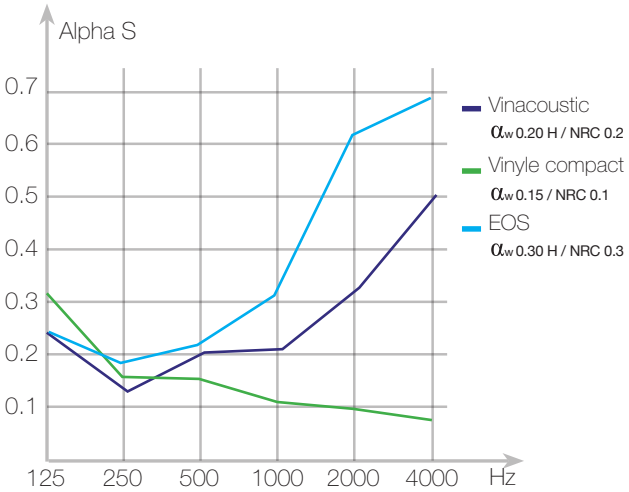
Rigitone® 12-20/66 with plenum cavity of 25 mm



- The assembly with a simple plenum (without mineral wool) provides a highly effective acoustic solution : high absorption from low frequencies, very balanced curve throughout the spectrum

Acoustic plasterboard = acoustic insulation ΔRA +16 dB

Renomince®



An assembly which combines acoustic insulation and sound absorption.

- This mix substrate provides additional absorption on very low frequencies
- Renomince® acoustic plasterboard is above all an acoustic insulation solution that is thin and easy to install : ΔRA +16 dB (on coated hollow bricks)
- According to the mass law, applying a heavy wallcovering on this based makes the acoustic insulation even more effective : Vinacoustic (890g/m²) = ΔRA +4 to +6 dB (on plaster tiles)

Applications

• An acoustic treatment for every use.

- Improving sound clarity : music room, concert hall
- Improving vocal intelligibility : classroom, conference room
- Fostering concentration : offices or open-space area
- Creating a confidential space : meeting room, reception room
- Encouraging communication : restaurant
- Controlling sound volume in order to reduce its spread : common circulation space, rest areas

• Texdecor offers 3 complementary surfaces of wallcoverings to meet the various requirements of public buildings :

- Vinyl finishing : for intensive use Very resistant to shock and easy to maintain
- Textile finishing : for a muffled, cosy and elevated atmosphere
- Finishing ready for painting : easy to coordinate when renovating, easy to maintain and renovate.

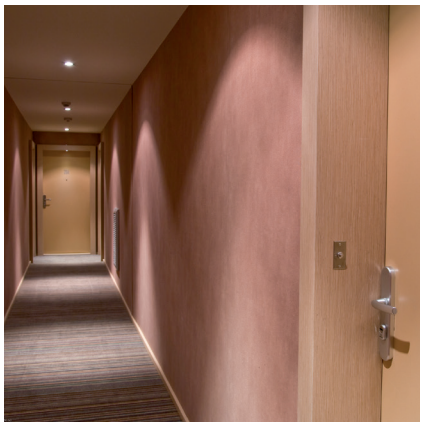
• All Texdecor's acoustic comfort solutions :

Acoustic range 0.3

- Acoustic wallcoverings
  - 13 collections
  - 280 designs

Acoustic range 0.7

- Acoustic panels
- Acoustic wallcoverings
- Acoustic blinds



Acoustic values

	Compact vinyl					Quickmousse		Soft	Vinacoustic					EOS					Acoustiglass	
Laboratories	PEUTZ	SIM	PEUTZ	PEUTZ	PEUTZ	SIM	SIM	SIM	CSTB	SIM	PEUTZ	PEUTZ	PEUTZ	CSTB	SIM	PEUTZ	PEUTZ	PEUTZ	SIM	SIM
Substrate	Concrete	BA13	OSB	Rigitone (without plenum)	Reno-mince	Concrete	BA13	BA13	Concrete	BA13	Rigitone (without plenum)	Rigitone (plenum 25mm)	Renomince	Concrete	BA13	Rigitone (without plenum)	Rigitone (plenum 25mm)	Renomince	BA13 Painted	BA13 pre-painted
125	0	0,02	0,04	0,01	0,3	0,08	0,06	0,04	0,01	0,02	0,02	0,17	0,21	0,05	0,07	0,03	0,12	0,23	0,02	0,04
250	0	0,05	0,09	0,1	0,15	0,06	0,04	0,07	0,03	0,09	0,1	0,34	0,11	0,07	0,15	0,09	0,34	0,14	0,1	0,06
500	0,01	0,1	0,17	0,12	0,14	0,06	0,09	0,12	0,08	0,17	0,21	0,41	0,17	0,13	0,22	0,2	0,7	0,21	0,13	0,21
1000	0,01	0,12	0,12	0,08	0,09	0,02	0,12	0,14	0,36	0,24	0,33	0,45	0,19	0,3	0,29	0,49	0,75	0,31	0,2	0,27
2000	0,04	0,1	0,08	0,13	0,08	0,04	0,14	0,13	0,46	0,38	0,55	0,43	0,33	0,72	0,35	0,87	0,57	0,61	0,41	0,36
4000	0,11	0,09	0,05	0,05	0,07	0,17	0,16	0,17	0,26	0,56	0,37	0,38	0,49	0,6	0,36	0,6	0,63	0,71	0,22	0,44
αW	0,05	0,1	0,15	0,15	0,15	0,05	0,15	0,15	0,20H	0,25	0,30H	0,45	0,20H	0,25H	0,3	0,30H	0,6	0,30H	0,2	0,25H
NRC	0	0,1	0,1	0,1	0,1	0,05	0,10	-	0,25	0,25	0,30	0,40	0,2	0,2	0,25	0,4	0,6	0,3	-	0,25

The measurements have been carried out according : EN ISO 354 / EN ISO 11654 / ASTM.C 423-09a
The description of substrates can be found in the acoustic test reports

Concrete
BA13 Plasterboard
OSB 16 mm wood board
12-20/66 Rigitone perforated plasterboard® (or equivalent), without plenum
12-20/66 Rigitone perforated plasterboard® with plenum cavity of 25 mm
BA13 Renomince® acoustic plasterboard (or equivalent)

Acoustic test reports of IAC Sim Engineering CSTB and PEUTZ laboratories :

PEUTZ - A3151-1E-RA / A3151-5E-RA / A3151-4E-RA / A3151-3E-RA
SIM-141G00 / SIM 138G04-7 / SIM 003G07-4 / SIM 138G04-1Bis / SIM 14GAC286 / SIM 202G05
CSTB – AC09-260 20 144

Available on www.texdecor.fr or on request from our sales department on Tel : + 33 3 20 61 75 41 - Fax : + 33 3 20 61 75 66

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WALLCOVERINGS

TEXBROPERFACGB

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