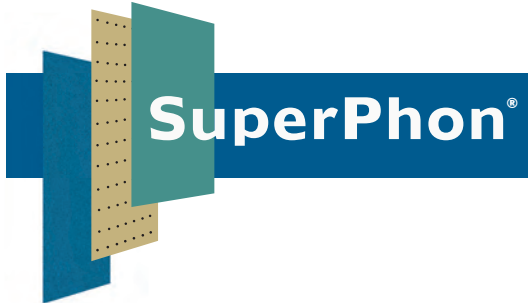


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SuperPhon® Range

Sound absorption for walls and ceilings



The Beauty Of The SuperPhon® Range

The SuperPhon® range provides an effective means of controlling reverberation and reflected sound in rooms. It provides an ideal solution for environments and workplaces where noise can be an issue. For example, SuperPhon® is used widely in recording studios, sports halls, schools and call centres.

However, the technical quality of the solution is only part of the beauty of the SuperPhon® range. The fundamental attraction of SuperPhon® is its adaptability. SuperPhon® is a flexible solution that can be tailored to any sort of environment. It can provide complete wall coverage or it can provide partial wall coverage. SuperPhon® panels can even be suspended from ceilings, to minimise risk of contact and damage in busy areas. The SuperPhon® High-Impact range also offers a solution for high-intensity, heavy traffic locations.

Do you require complete wall coverage?

Noise-sensitive spaces such as recording studios, audiology rooms and call centres benefit from the SuperPhon® Wall System. The wall panels can be positioned to achieve total wall coverage and therefore maximise the level of sound absorption.

The SuperPhon® Wall System provides an aesthetically pleasing finish. However, this is also underpinned with the use of high quality technical materials so that you can hear, as well as see, the difference.

The SuperPhon® Wall System is manufactured from sound absorbing, non-combustible mineral board, covered with high quality open weave fabric. The top and bottom of the Wall System are fixed to the wall using 'U' channels and a choice of trims is available to cover joints and corners. Channels and trims can be matched to the panel fabric to achieve a seamless 'floor-to-ceiling' finish.

Do you require partial wall coverage?

Complete wall coverage is not always suitable, practical or, in fact, necessary.

In recognition of this, CMS Danskin Acoustics has developed SuperPhon® Panels. Panels are an ideal solution in both new build scenarios and existing spaces. They are easily applied directly to the wall, so they can be comfortably added during initial builds or even later, as an enhancement. They can even be fitted with Velcro pads, so that they can be removed if required. They can also be installed on timber battens – a technique which creates an air pocket to increase their performance.

SuperPhon® Panels are just as aesthetically pleasing as the SuperPhon® Wall System, so the Panels can either blend into your existing decor or become a stylish design feature in their own right. There is a variety of concealed fixing methods available, including adhesives and wall fixing plates.

Can you suspend absorbers from ceilings?

In environments with continual activity, such as sports halls or busy workplaces, it may not be appropriate to apply sound absorption solutions at wall levels. The solution in these scenarios is often SuperPhon® Suspended Absorbers.

SuperPhon® Suspended Absorbers are manufactured using a foam core and an open weave fabric, which creates a lightweight structure. This enables the Absorbers to be suspended safely and discreetly, using a range of bespoke suspension methods. Of course, the design of the Absorbers is totally flexible – so you could also choose to transform them into a striking design feature.

Do you need absorption and impact resistance?

SuperPhon® High-Impact Panels have been specifically developed to provide attractive reverberation solutions for areas of high traffic or where surface impact is expected. So they are perfect for places like gyms and sports halls, and have also been used in classrooms, hospitals, police stations and various types of communal areas.

SuperPhon® High-Impact Panels are manufactured to exact project requirements. They are made from sound absorbent, non-combustible glass fibreboard with a front panel of thermally bonded polyester acoustic fibre with high-density polyester backing.

However, this technical precision does not mean that they are any less aesthetic. As with other CMS solutions, the panels provide an attractive finish to both new builds and retrofits.

Case Studies

Inspiring reverberation control at Liverpool Academy



As a new state-of-the-art educational facility, North Liverpool Academy needed to achieve BB93 compliance and at the same time create an aesthetically pleasing learning environment. In recognition of their expertise in BB93 compliance, the Academy chose CMS Danskin Acoustics to implement a full assessment, specification and recommendation. Following the assessment, the team of CMS Danskin Acoustics specialists realised that varying reverberation time targets throughout the Academy demanded a complex noise management solution. They recommended a combination of SuperPhon® High-Impact, for the sports hall and library, and standard SuperPhon® wall systems for the sixth form areas and dedicated TV studios.

This solution meant that the Liverpool Academy achieved BB93 compliance. At the same time, however, they also enjoyed the benefits of a cost-effective system that is robust yet easy and quick to install.

Ken McCandless, North Liverpool Academy, comments: ***“At the Academy we aim to provide a safe and stimulating learning environment for our students. As well as complying with acoustic standards, it is important for the teaching and learning spaces to be inspiring. The SuperPhon® Hi-Impact system has provided an excellent solution for helping us to achieve this.”***

Bespoke system design for St Helen’s College



St Helen’s College, Merseyside, is a £45m state-of-the-art college scheme. Designed to create a learning environment for the future, the building needed to be inspiring and practical to use. To realise this vision, EWA Architects conceptualised a ‘floating’ acoustic panel that would effectively control reverberation and deliver BB93 compliance.

CMS Danskin Acoustics designed and manufactured a bespoke SuperPhon® Suspended Absorber system to match the architects’ floating design. In all, 320 panels were installed at St Helen’s College, covered with standard SuperPhon® open weave fabric and in a combination of Adriatic and White colour schemes. CMS Danskin Acoustics also managed the project through to completion, providing on-site supervision to ensure the contractors were trained and competent in the approved installation procedure.

Richard Alonso, project architect, EWA Architects, concludes: ***“We were extremely impressed with the responsiveness, technical knowledge and manufacturing capabilities of CMS Danskin Acoustics. We presented a challenging design vision that added a special touch to the teaching environment, and CMS Danskin Acoustics responded with a cost effective system that looked excellent and, more importantly, delivered on BB93 performance.”***

Helping Redland Green stay streets ahead



As part of a significant programme of investment in school buildings, Redland Green School in Bristol aimed to create a truly state-of-the-art learning environment. However, aspects of their ambitious plans meant significant acoustic challenges. The building design incorporated ‘The Street’. Malcolm D’Crus, project architect at BDP, explains: ***“The Street was designed to be the main area where pupils would congregate, but it contained lots of hard surfaces. Without taking preventative measures, the noise level would have been unacceptable.”***

Fully bespoke SuperPhon® Acoustic Wall Panels were identified as the most effective solution to meet all of the project requirements. At Redland Green, more than 200 panels were precision installed on the upper half of the walls, throughout the 100m x 5m Street. Redland Green School is now operational and The Street is as popular as it is striking. In spite of being a bustling area, as the architects intended, sound reverberation is controlled. Moreover, as outlined in the specification criteria, the interior environment has stayed true to the architectural vision.

Features and Benefits

With a wide selection of colour finishes and installation options, the SuperPhon® range provides an aesthetically pleasing reverberation solution for a range of applications.

The SuperPhon® Range includes:

- SuperPhon® Wall System
- SuperPhon® Baffles
- SuperPhon® High Impact
- SuperPhon® Window Reveal Liners
- SuperPhon® Suspended Absorber



Benefits

- Provides up to Class A performance
- 88 colours available over two ranges
- Wipe clean finish available
- Bespoke manufacture
- Complete range of fixing systems
- Free reverberation calculation service available
- Installation service can be provided through approved contractors
- Full technical and on-site support

Design flexibility

The SuperPhon® range is available in standard sizes and thicknesses, and bespoke panels and absorbers of a specific size, thickness, shape or fabric facing can be readily manufactured. As well as the broad offering of standard fabric colours, panels can be colour matched to any chosen fabric.

Bespoke installation options

SuperPhon® systems can be installed using a range of non-visible fixing systems, such as Velcro strips or fabric covered metal strips fixed between top and bottom 'U' channels, allowing panels to be easily removed for access. Alternatively, the panels and absorbers can be installed permanently using wall fixing plates. CMS Danskin Acoustics provides comprehensive installation guidelines with each product.

Applications

With a flexible design and installation process, the SuperPhon® range is suitable for a variety of applications where reverberation times and reflected sound needs to be addressed.

Suitable applications for wall mounted SuperPhon® Wall System and Panels include:

- Recording studios
- Audiology rooms
- Commercial premises
- Schools
- Offices
- Reception areas
- Cinemas and theatres
- Call centres and conference rooms
- Public entertainment facilities

SuperPhon® High-Impact Panels combine effective absorption with impact resistance, making them ideal for:

- Schools
- Leisure centres
- Exhibition centres
- Offices

Physical information

SuperPhon® Wall System and Panels	
Thickness	25mm and 50mm Other thicknesses available on request
Max panel size	3000 x 1200mm Subject to fabric limitations
Standard sizes*	1200mm x 1200mm 1500mm x 1200mm 1800mm x 1200mm 2100mm x 1200mm 2400mm x 1200mm 2700mm x 1200mm 3000mm x 1200mm
Weights	3.25kg/m ² for 25mm panel 5.00kg/m ² for 50mm panel

*Other sizes available on request

SuperPhon® High Impact	
Thickness	37mm and 62mm
Material Composition	Glass fibre & Polyester
Max panel size	3000 x 1200mm

SuperPhon® Suspended Absorbers	
Size	1200 x 600 x 50mm Other sizes available on request

All SuperPhon® products are available in 88 colours over two ranges. Other colours are available on request.

Technical Specification

SuperPhon® wall coverings

To ensure effective sound absorption is achieved, noise surveys and anticipated reverberation times pre- and post-installation should be carried out. Random incidence sound absorption coefficients are tested to BS EN ISO 354: 2003. Independent tests undertaken by Sound Research Laboratories Limited. Test data available on request.

Frequency / Thickness	125	250	500	1k	2k	4k	NRC	Absorber Classification*
25mm panel Solid back	0.07	0.31	0.76	1.02	1.09	1.10	0.80	C
25mm panel 25mm air gap	0.11	0.42	1.01	1.12	1.09	1.08	0.90	C
25mm panel 50mm air gap	0.18	0.55	1.13	1.10	1.05	1.02	0.95	B
25mm panel with two simulated posters on face	0.10	0.37	0.93	0.99	0.90	0.82	0.80	C
50mm panel Solid back	0.32	0.90	1.15	1.10	1.09	1.10	1.05	A
50mm panel 25mm air gap	0.35	1.04	1.21	1.15	1.10	0.98	1.15	A
50mm panel 50mm air gap	0.41	1.02	1.15	1.10	1.03	1.00	1.10	A

*Calculated to EN ISO 11654:1997

Treatment guide

Blood	AC	Grass	C	Oil	BDC
Chewing Gum	IBDC	Grease	BDC	Paint - water based	AFC
Chocolate	BDC	Ink - Ballpoint	DE	Paint - oil based	AHDC
Cooking Oils	BDC	Ink - Fountain	AC	Sauces	BCD
Crayon/Colour Markers	BDC	Lipstick	BECD	Shoe Polish	BCD
Drinks (Cola, Juices, Beer)	AC	Mildew	C	Urine	AC
Dust/Dirt	Vacuum, then J or C	Milk	AE	Vomit	ACD
Excrement	BC	Mud	BC	Wine	A, add salt, C
		Nail Polish	AG		

A Mop up excess as soon as possible.

B Remove surplus with a knife edge or appropriate instrument.

C Sponge with a solution of carpet shampoo working from well outside the stain in a circular motion towards the centre [this avoids spreading the stain]. Sponge afterwards with clean warm water and mop up excess moisture with a clean dry cloth or sponge.

Allow to dry then brush gently with a soft cloth. If any stain remains, sponge with a solution of 1 part household bleach to 6 parts water. Rinse thoroughly after treatment.

D Lightly sponge with household dry cleaning fluid and blot. Apply sparingly, as the substance may have an adverse effect on the adhesive.

E Sponge with methylated spirits and blot dry.

F Lubricate stain with glycerine or petroleum jelly.

G Apply nail polish remover. The nail polish remover should not include lanolin or be of a greasy nature.

H Sponge with turpentine or a substitute.

I Freeze with ice cubes and scrape away when cold.

J Clean with regular extractive carpet cleaner if possible.

SuperPhon® Suspended Absorbers

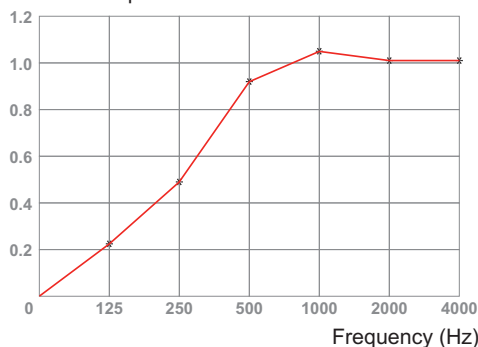
Frequency	125	250	500	1k	2k	4k
Sound Absorption Coefficient	0.24	0.49	0.92	1.05	1.01	1.01
Equivalent Sound Absorption Area, m ²	1.8	3.6	6.6	7.4	7.4	7.4

SuperPhon® High Impact Panels

37mm High Impact	125	250	500	1000	2000	4000	Hz	Absorber Classification
	0.05	0.30	0.70	1.00	1.00	1.00		C
62mm High Impact	125	250	500	1000	2000	4000	Hz	
	0.32	0.85	1.00	1.00	1.00	1.00		A

Acoustic performance of SuperPhon® Suspended Absorbers

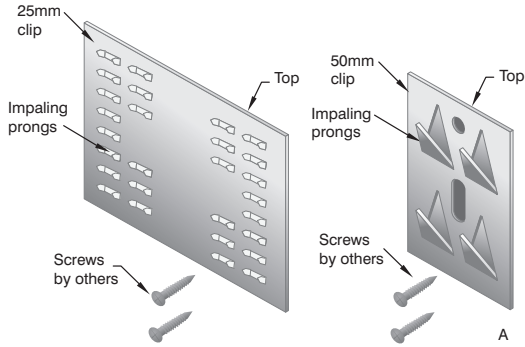
Noise Absorption Level



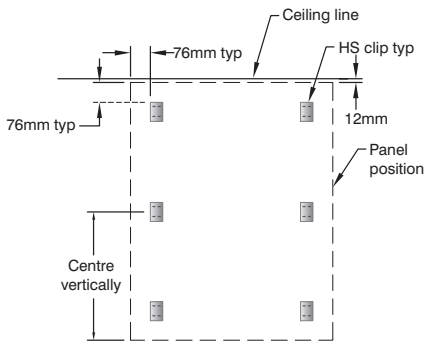
Installation Guidelines

Details of standard SuperPhon® System installation guidelines are provided below. Please consult CMS Danskin Acoustics for advice on installing a specific system. Bespoke suspension and installation procedures can also be provided.

Fixing Plates



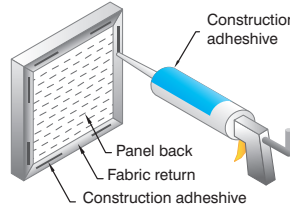
A



B

Clip placement is approximate
NOTE: See chart for typ number of clips per panel

Construction adhesive recommended

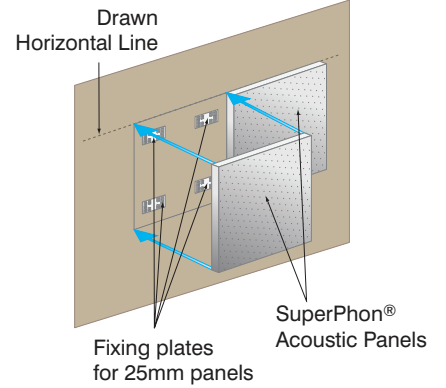


C (Adhesive to be applied to fabric return only)

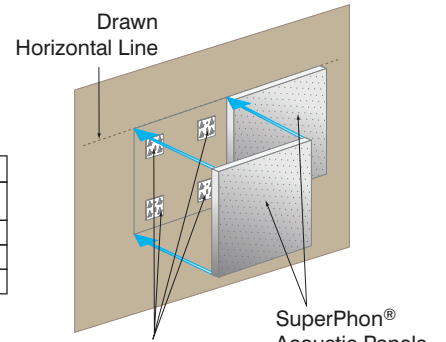
- Determine where panels are to be installed (allow 12mm gap between panel and ceiling)
- Screw HS clips into place on wall per detail B and clip chart below
- Clean wall surface and apply construction adhesive to panel back as shown in detail C (**adhesive to be applied to fabric return ONLY**)
- Position panel approximately 12mm higher than desired panel resting position and impale panel onto clips with a downward motion

50mm Panels		25mm Panels	
Panel length (mm)	No. of clips	Panel length (mm)	No. of clips
Up to 610	4	1000	4
610 to 1200	4	1500	6
1200 to 1500	4	All other sizes	8
1800 to 2400	6		
2400 to 3000	8		

NOTE: Impaling prongs may be bent further to eliminate 12mm gap (Construction adhesive **MUST** be used when prongs are adjusted)



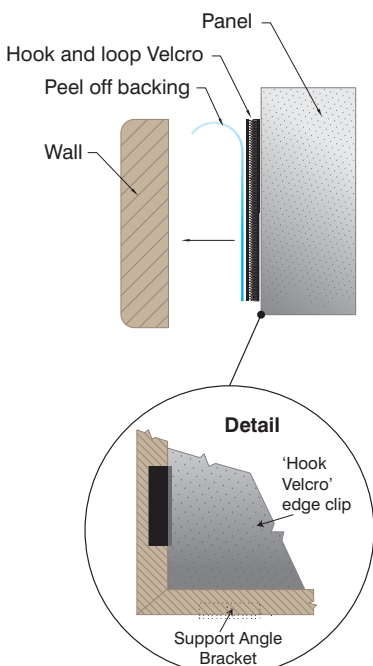
Fixing plates for 25mm panels



Fixing plates for 50mm panels

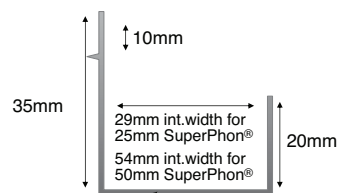
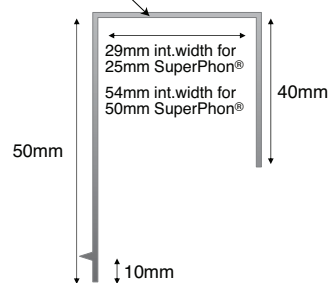
1000mm x 1000mm panels shown

Velcro Fixings



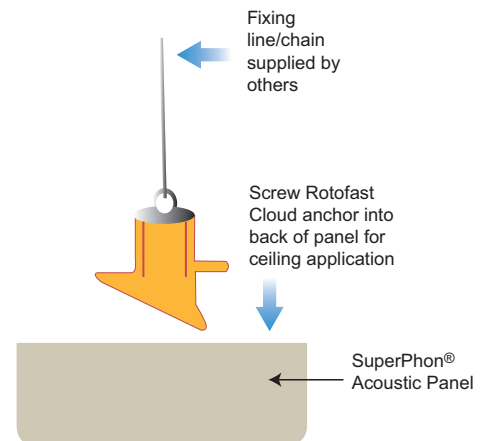
U Channel

U Channels fabric matched to SuperPhon® Panel



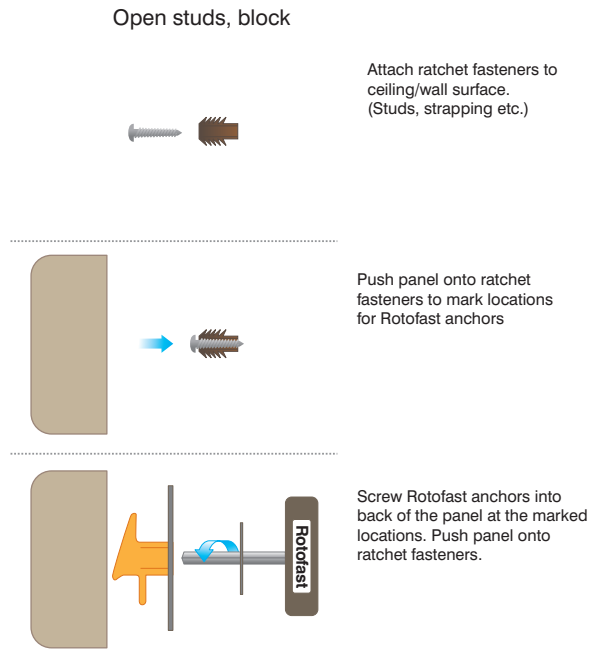
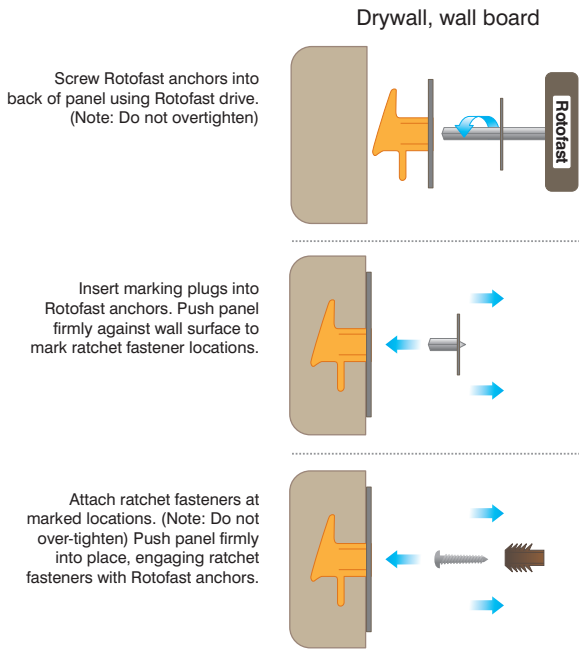
U Channels fabric matched to SuperPhon® Panel

Rotofast Cloud

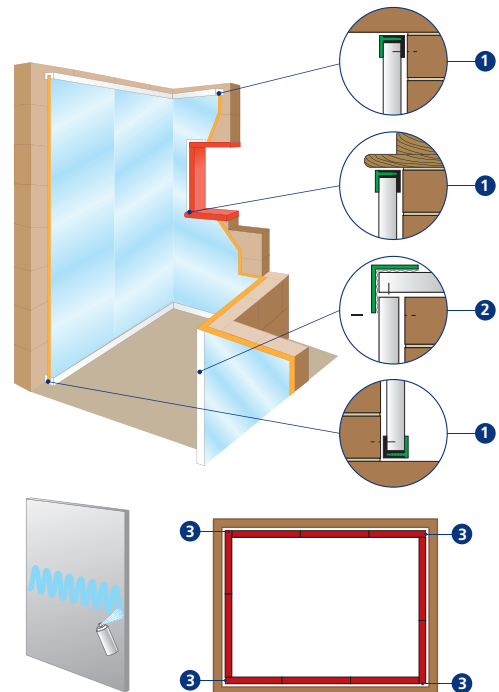
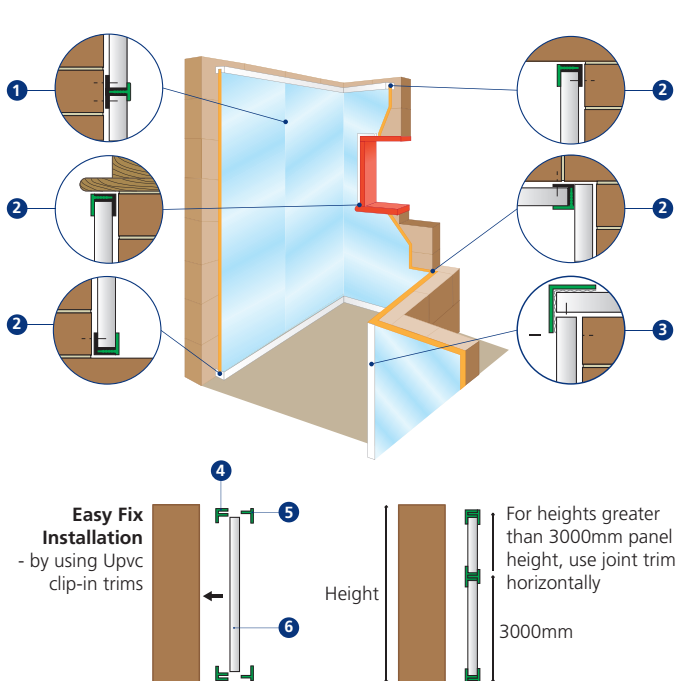


Installation Guidelines

Rotofast Anchors



Easy Fix System



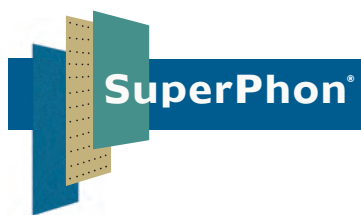
- | | |
|--------------------------------|--------------------|
| 1. CMSAA25 Joint Trim | 4. CMSAF Trim |
| 2. CMSAB25 Perimeter Trim | 5. CMSAM Trim |
| 3. CMSAA50 External Angle Trim | 6. SuperPhon Panel |

- | |
|--------------------------------|
| 1. CMSAB25 Perimeter Trim |
| 2. CMSAB50 External Angle Trim |
| 3. Cut Edge |



The SuperPhon[®] range is just one of a number of acoustic solutions available exclusively in the UK from CMS Danskin Acoustics

CMSDANSKIN
ACOUSTICS



www.cmsdanskin.co.uk

Scotland Office:
1 Netherton Road
Wishaw. ML2 0EQ
t: 01698 356000
f: 01698 372222

Central/Southern Office:
Unit 2, Lyncastle Road, Appleton
Warrington. WA4 4SN
t: 01925 577711
f: 01925 577733

