

Acoustic Decorative Finishes for Excellent Architectural Acoustics; Textured to Plaster Smooth.

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A visually beautiful room may not be a pleasurable place to spend time due to poor architectural acoustics. Hard flat surfaces such as wooden floors and plastered walls reflect sound thereby increasing and amplifying noise levels within the space resulting in poor architectural acoustics and sound quality.



SonaSpray fcx is a one coat acoustic decorative finish with an attractive flat, lightly pitted surface. It is used as an alternative to SonaSpray fc when a flat non textured finish is required or instead of Sonacoustic when there is no need for a plaster like finish. SonaSpray fcx is typically applied at 10-12mm thick onto walls as often as ceilings due to its resilient finish and superb ability to control architectural acoustics. It is spray applied and will conform to any surface shape, providing that the surface curvature will allow finishing with a trowel. The high performance adhesive will bond to virtually all common construction materials including plaster, wood, metal and concrete. Some surfaces (water or tobacco stained ceilings, wooden and oxidised metal) will require sealing to prevent migratory staining into the fcx SonaSpray finish.

Options: **fcx spray finish – fine texture.** **fcx trowelled finish – flat lightly pitted surface**

The standard finish colour white can be over painted to the chosen colour with a minimal effect on the sound absorption qualities of SonaSpray fcx and its ability to achieve good architectural acoustics.



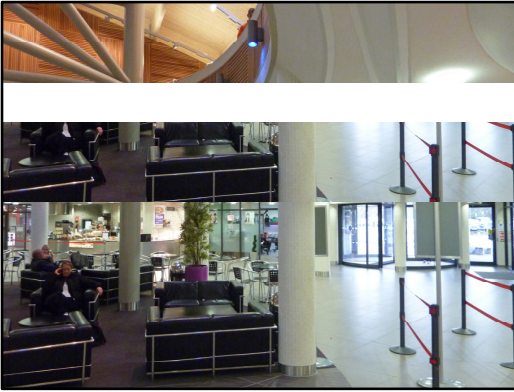
Carbon Neutral – Low Embodied Energy – Good for the environment – Recyclable Safe recycled natural cellulose fibre. Future reconstruction of buildings may require removal of SonaSpray, it can be recycled or disposed of as a non-special waste – your local authority environmental department will give advice on recycling.

SonaSpray fcx Project Examples:



At Harlow leisure zone in Harlow, Essex, architectural acoustics played a key role in the making of their large reception, café and lounge area.

The low multi-layered and curved feature ceiling presented the architect with an acoustic problem that could not be solved by simply positioning acoustic panels on the walls. SonaSpray fcx was specified for its superb absorption capabilities as well as being a versatile monolithic spray applied finish that could follow the exact lines of the substrate.



Selecting the right product in Oscar Acoustics' large range of finishes meant that customers to the impressive winged leisure centre were completely unaware that SonaSpray fcx was anything other than a conventional building finish.

The Arctic White SonaSpray fcx core material is through coloured, negating the need for decoration and as an added bonus is even whiter than Dulux Brilliant White, giving an impressive 81% light reflectivity – very important in a large low ceilinged reception area with limited natural light.

Architectural acoustics at their best!





Birmingham University

Birmingham University's Grade II listed building, Muirhead Tower is a 16 storey 8,000m² floor area structure the spread over two towers with adjoining walkways and stairwells, designed by Sir Philip Dowson of Arup Associates in 1971.

The brief for the recent refurbishment was to replace the failing glazing system, recondition the deteriorating exposed concrete and to generally modernise its overall appearance whilst also creating 150 academic offices and 230 post graduate write-up spaces.

Muirhead Tower also had to comply with BB93 regulations

which meant that all teaching and work spaces within the

school had to have adequate architectural acoustics. As Muirhead is a listed building, the design and build architects Galliford Try were under strict instructions to retain as many of the original features as possible, which ruled out installing suspended acoustic ceilings below the profiled concrete substrate.

8000m² of SonaSpray fcx was specified for its ability to refurbish the original feature ceiling whilst also complying with BB93 regulations. The SonaSpray fcx covered the rough dirty concrete in a brilliant white finish accentuating the original features rather than hiding them and creating.





Black Tiles Restaurant

“Simply Awesome! Its’ created a totally different dining environment, speech and music are clear and all background clutter noise has gone. The restaurant feels comfortable and somehow warmer.”

Comments from Black Tiles Restaurant owner Tim Yeo, (as featured on BBC Radio Four’ architectural acoustics report.)

Black Tiles Restaurant, Black Tiles Lane, Martlesham, Woodbridge, Nr. Ipswich.



Tapanco Restaurant, Wimbledon.

SonaSpray fcx was applied to walls and colourfinished with beige emulsion paint for an attractive decorative finish and a comfortable acoustic environment.

For improved architectural acoustics, SonaSpray fcx is applied by experienced Oscar Acoustics installers, trained by International Cellulose Corporation, using authorised equipment, fibres and adhesive.

As featured in an architectural acoustics special on BBC televisions’ ‘See Hear’. For larger photos, please see ‘Examples’ page.

Technical Information

Acoustic DATA:

SonaSpray fcx installations are tailored to meet your specific projects' architectural acoustic needs. There is a choice of finish and acoustic performance. Special colours can be manufactured for larger installations or for most applications the standard white RAL9010 finish can be refinished with water based paint. SonaSpray fcx may be applied at variable thicknesses and areas to provide designed acoustic ambience. It is spray and trowel applied building to the full thickness in one application.

SonaSpray fcx standard absorption coefficients

Thickness	250Hz	500Hz	1000Hz	2000Hz	4000Hz	NRC
6mm	0.07	0.39	0.69	0.83	0.87	0.50
10mm	0.11	0.46	0.77	0.84	0.89	0.55
12mm	0.16	0.49	0.89	1.03	0.97	0.65
20mm	0.48	0.81	0.85	0.85	0.94	0.75

Test DATA certified by TNO Technical University Delft NL. Tests were on a solid substrate. A panel substrate with air space behind the panel will change absorption; normally there is improved absorption at low frequency giving further flexibility in the design of architectural acoustics.

Thermal DATA:

SonaSpray insulates by creating dead airspaces macroscopically between and within the hollow cellulose fibres.

Mass: Dry weight 4.50kg/m² at 20mm thick.

Bonding to Substrate:

SonaSpray fcx can be applied to virtually any substrate; some surfaces may need priming to control suction. Old surfaces may need a barrier coating to prevent staining from leaching out of contaminants while the surface is wet. Fully cured SonaSpray fcx will not only improve the architectural acoustics but improve the strength of the substrate.

Condensation Control:

For indoor swimming pools SonaSpray fcx aids in condensation control. The proper combination of SonaSpray fcx and ventilation prevents condensation on metal, concrete and other surfaces. SonaSpray fcx actually reduces ventilation requirements, saving in both the ventilation equipment cost and operating costs.

RH Control:

SonaSpray fcx is a natural humidity moderator. At times of increasing humidity SonaSpray fcx will absorb large amounts of water vapour. When the humidity drops SonaSpray fcx will exhale water vapour and maintain a balance. This characteristic promotes a healthy atmosphere.

