



## Ambient Acoustic Systems

The House of Scandinavian Finishing Materials



# What benefits



## The Benefits

- Excellent reverberation control
- Noise reduction = stress reduction (at home and at work)
- Good acoustics = improved work efficiency and performance
- Enhanced listening experience
- Excellent design flexibility - can be applied on curved and vaulted ceilings
- Jointless acoustic finish
- Non polarised material ensures low maintenance and easy cleaning
- Can be applied equally well to hard substrates or suspended ceilings
- Non hazardous
- Easy to maintain and repair
- An EcoLife product - Zero VOCs
- Uses 80% recyclable material
- Incombustible
- Vapour permeable
- Excellent fungal resistance
- A large colour spectrum is available.

## Terraco Ambient

### Main Components

Terraco Ambient Acoustic Systems are comprised of 3 main acoustic components which are used in various combinations to achieve the desired acoustic properties.

#### 1. Ambient Basecoat

Terraco's high quality acoustic performance plaster. Typically applied in layers of 8 - 18 mm to create the main absorbent layer.

#### 2. Ambient Finishcoat

Terraco's decorative acoustic finishing plaster. Applied as the final coat in layers of 2 - 3 mm. Ambient Finishcoat is available in a wide range of colours and can be finished smooth or with a spray texture.

#### 3. Ambient Acoustic Board

Acoustic mineral fibreboards. Usually used in thicknesses of 20 – 40 mm.

### System Options

The Ambient acoustic products, in conjunction with other components such as Ambient Primer and Ambient Adhesive are combined to produce several versatile system options. Terraco Ambient can be used in several ways on ceilings to achieve different acoustical effects according to the requirement of the building in question.

Directly on hard surfaces

Onto a concrete ceiling

Onto a gypsum board ceiling

On sound absorption boards

Onto a concrete ceiling

Onto a suspended ceiling

On perforated veiled acoustic gypsum boards



Hilton Metropole Hotel, London, United Kingdom

# ECO LIFE



## Environmentally Friendly

Terraco has constantly pushed the boundaries in environmentally friendly finishing materials, spearheading new technology and production techniques. The company takes pride in its flawless ecological track record and always aims to be the first to make new advances in ecological products available to the end user.

EcoLife marking denotes that a product is a part of Terraco's EcoLife range. This range of products has been formulated to comply with the most stringent national regulations in the various countries pertaining to interior decoration products. The products contain specially developed polymers and additives containing zero volatile organic compounds (VOCs), which ensure their inertness and ecologically friendly nature.

## Research & Development

The Terraco Group is committed to an extensive Research & Development Program. The Technical Centre, based in Ireland, leads the Group's in-house product development program and is responsible for making sure that Terraco products remain at the forefront of their field with regard to innovation, quality and environmental standards. Terraco cooperates with several technology partners and suppliers, conducting joint research projects in common interest areas.



KBS Dubbing Room, Seoul, South Korea



Stanley House, London, UK



The Dubai Mall, Dubai, UAE

## Quality Assurance

The Technical Centre implements strictly monitored quality control procedures at all production facilities ensuring homogenous, high quality products.

All Terraco companies follow QC procedures as outlined by ISO and other internationally recognised certifiers and local regulators.

## Suitable Application Areas

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| <ul style="list-style-type: none"> <li>• Banks</li> <li>• Boardrooms</li> <li>• Indoor swimming pools</li> <li>• Galleries</li> <li>• Theatres</li> <li>• Civic buildings</li> </ul> | <ul style="list-style-type: none"> <li>• Museums</li> <li>• Hospitals</li> <li>• Libraries</li> <li>• Offices</li> <li>• Schools and colleges</li> <li>• Shopping malls</li> </ul> | <ul style="list-style-type: none"> <li>• Stairwells</li> <li>• Reception areas</li> <li>• Public areas</li> <li>• Lecture theatres</li> <li>• Restaurants</li> <li>• Hotels</li> </ul> | <ul style="list-style-type: none"> <li>• Meeting rooms</li> <li>• Living rooms with home theatre or sound systems</li> <li>• Entrance halls</li> <li>• Dining rooms</li> </ul> |
|--|--|--|--|



# Acoustics



## Acoustics – the issues

Positively harnessed acoustics are a part of every day life and are commonly used to enhance and amplify sound, for example musical performances. Unwanted sound or noise can however cause great discomfort and pose a serious health hazard that greatly reduces efficiency in the workplace and quality of life in general.

### Reverberation – the basics

- In enclosed spaces sound waves reflect, blend together, build up and create reverberation.
- The method of quantifying reverberation time was first developed in 1900 by Wallace Clement Sabine, an American physicist, following an instruction to remedy acoustical difficulties in the lecture room at the Fogg Art Museum.



$$T = \frac{0.161 \times V}{A \times S}$$

#### Sabine's formula

T = Reverberation time

V = Volume in m<sup>3</sup>

A = Average absorption coefficient of the room

S = Total surface area of the room in m<sup>2</sup>

Reverberation time is the time required for the amplitude of sound to drop by 60 dB (after the source has ceased transmitting)

Popular design themes, such as minimalism, produce architecturally pleasing environments - the emphasis being on clean, unobstructed spaces and areas. Such designs, however, generally incorporate hard, flat surfaces, which have a negative effect on reverberation and exacerbate unpleasant noise.

Properly controlled acoustics are becoming increasingly important for architects, designers and builders across the globe as they strive to meet design criteria while ensuring the minimisation of negative acoustic effects.

## Experience

Terraco understands the science of acoustics, but more importantly prides itself on its knowledge of how to control acoustical properties in practice. The company has extensive experience in real acoustic engineering in public and private applications.

Terraco's acoustic products, such as Terraco Ambient, have been designed and formulated to provide versatile solutions to acoustic problems in the real world.

## Ecological products for the present and future

The modern Terraco materials, developed over many years for a variety of diverse applications, have stood the test of time and can be relied upon to cope with the demands of the 21st century.



[www.terraco.com](http://www.terraco.com)

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