

# Installation & Maintenance Instructions



## Mineral Fibre Ceiling Panels

### 1. GENERAL

#### 1.1 Product Description

Armstrong Ceiling Panels referenced in these instructions are made from a (biosoluble) mineral fibre substrate and designed to be installed in a PeakForm or Blue Tongue Suspended Grid System. All panels can be removed and re-installed without tools or special equipment. Armstrong mineral fibre panels are available in a range of standard sizes, but typically 1200x600mm (Nom) and 15 or 19mm thickness.

#### 1.2 Surface Finish

The face of the panels vary based on product type:

1. Smooth perforated and painted (eg. Fine Fissured)
2. Fine sandy textured and painted (eg. Dune)
3. Ultima & Bioguard Acoustic families of panels feature a painted durable, acoustically transparent scrim on the face. The edges of Bioguard Acoustic panels are paint sealed, with colour to match the face.

### 2. SITE CONDITIONS

It is the responsibility of the ceiling contractor to ensure that materials delivered to the installation site are safeguarded from the time of purchase until the finished ceiling is handed over. However, it is usually the main contractor who is responsible for the conditions on site and so both parties must be aware of the requirements of suspended ceilings for flat, dry, clean and safe storage conditions

Building areas to receive ceilings shall be free of construction dust and debris. These products are not recommended for exterior applications or where standing water is present or where moisture will come in direct contact with the ceiling.

All cartons may be stacked on suitable pallets and secured with shrink-wrapping for transportation but when on the installation site they should never be stacked higher than when originally delivered to the site. Consideration should be given to the advice of the OH&S Representative regarding the manual handling of heavy cartons. An assessment should be made of any associated risks and if necessary mechanical lifting equipment should be used.

### 3. STORAGE AND HANDLING

Packaging of Armstrong mineral fibre panels are designed to withstand careful site handling. However, poor or rough handling, rolling or dropping of cartons on their corners or edges may cause damage to the product or the product to deteriorate, irrespective of the material.

The Panels shall be stored in a dry interior location and shall remain in their original cartons prior to installation to avoid damage. The cartons shall be stored in a flat, horizontal position, and without any other heavy objects on top of them.

The Panels should not be removed from the carton until the suspension system is installed. Proper care should be taken when handling to avoid damage and soiling. White cotton or latex gloves are recommended for handling.

### 4. WORKING WITH MINERAL FIBER PRODUCTS

#### 4.1 Precautionary Measures

During the installation be certain that the work site is well ventilated and avoid breathing dust. If high dust levels are anticipated during installation such as with the use of power tools, use appropriate NIOSH designated dust respirator. All power cutting tools must be equipped with dust collectors.

Avoid contact with skin or eyes. Wear long-sleeved, loose-fitting clothes, gloves and eye protection.

#### 4.2 First Aid Measures

If contact occurs flush eyes and skin irritation with plenty of water for at least 15 minutes and remove contaminated clothing. After installing material, wash with warm water and mild soap. Wash work clothes separately from other clothing. Rinse washer thoroughly. Refer to Armstrong MSDS (which includes information on established occupational exposure limits) which are available from Armstrong or your employer.

### 5. INSTALLATION CONDITIONS

Armstrong mineral fibre ceilings are INTERIOR FINISHES ONLY and conditions during the installation should reflect this. Panels cannot be used in exterior applications, where standing water is present, or where moisture will come in direct contact with the panels.

Armstrong recommend during installation that the relative humidity (RH %) should not exceed 99%, within a 0–49°C temperature range (with the exception of Bioguard Acoustic OP RH100 panels, which can be installed in conditions of 100% RH, including “standing water” applications, within 0–49°C).

### 6. INSTALLATION

Cartons should be opened carefully to ensure that tiles can be removed without damaging the edges of the tiles. It is recommended that tiles are cut with a sharp knife. Unnecessary breakage of tiles should be avoided. Care is necessary when handling and installing tiles, to prevent

finger marking of the surface from soiled or greasy hands, and where appropriate, clean cotton gloves should be worn. Installation of ceiling tiles should only take place after the completion of any work generating large amounts of dust.

The ceiling installer is responsible for the satisfactory installation of the ceiling and adherence to industry best practice and in accordance with AS/NZS2785:2020

**Note:** The acoustical panels shall not support any other material as this may effect dimensional stability.

## 7. PENETRATIONS, CUTTING AND FINISHING

Armstrong mineral fibre panels can be field cut for penetrations.

1. Measure the Panel penetration to the correct size required
2. Mark the Panel at the cutting location with a pencil
3. Cut through the Panel with a fine tooth saw or sharp knife

**Note** for Clean Room Application:

- a. If required it may need a light sand with a fine sandpaper to remove an exposed fibres
- b. Apply touch up paint to the newly cut and sealed Panel ends.

## 8. AFTER COMPLETION

Once a building is handed over to the client, it is not always occupied at once. In this situation heating and ventilation may sometimes be decreased or switched off to save energy costs. In these circumstances, conditions above and below the ceiling should be equalised and it may be necessary to temporarily remove tiles to facilitate this. Attention must also be paid to ensuring that the internal conditions are not allowed to exceed those that the ceiling tiles are designed to withstand. Heat build up due to solar gain may need dispersing by ventilation to reduce the risk of condensation occurring as the temperature falls. The effect of insulation in the ceiling space or in a roof construction also needs consideration and sufficient ventilation may be required to prevent surface condensation and a vapour control barrier to control the effects of surface or interstitial condensation.

## 9. MAINTENANCE AND CLEANING

Armstrong mineral fibre tiles are marked on the back for ease of identification. Maintenance on suspended ceilings should only take place after the effect of the work on the technical characteristics of the installation has been fully considered. If in doubt, please consult your nearest Armstrong Ceiling Systems Division sales office. The specialists there will help you in assessing your projected maintenance operation and offer advice on future performance of the existing ceiling after it has been carried out. Ceiling tiles should require no more maintenance than a painted plasterboard ceiling, however, when maintenance is necessary, certain procedures should be followed to ensure that the performance and appearance of the ceiling is maintained.

Minor damage to tiles can be repaired using Armstrong touch-up paint or commercially available white acrylic paint, although due to natural aging of the installation an exact colour match may not be possible. Similarly when replacing tiles, new material is likely to introduce colour variation. This

effect can be substantially reduced by redecoration of the entire ceiling, or by replacing all tiles in a particular area and using the re-usable existing tiles for refurbishment elsewhere.

## 10. THERMAL INSULATION

The use of overlaid insulation placed on, and supported by, mineral ceiling panels is not recommended. The additional weight supported by the panel could result in panel sag in high humidity conditions. If job requirements are such that insulation is necessary at recommended occupancy conditions, limit such insulation to a maximum of 1.27 kg/m<sup>2</sup>.

Only roll insulation is recommended and must be applied perpendicularly to the cross tees with the grid supporting the weight of the insulation.

## 11. PAINTING

Most Armstrong ceilings can be repainted by spraying with a commercially available acrylic paint.

### Painting Precautions

Armstrong cannot guarantee that the published fire resistance ratings, acoustical performance, dimensional stability/sag, or light reflectance will remain the same after repainting. Field or any other "after market" painting will void the warranty.

Armstrong recognizes that ceilings are occasionally repainted, however Armstrong cannot be responsible for the finished appearance or performance for the field-painted acoustical material.

### Spray Painting Method

When painting acoustical materials, the painter should be very careful that he does not close up the acoustical surfaces; perforations, fissures or the acoustical membrane on the Ultima and Bioguard Acoustic products. It is through these openings in the surface that sound waves enter the body of the acoustical material and are absorbed. Care should be taken that these perforations are not clogged. At minimum repainting will result in a 0.05 to 0.10 reduction in NRC.

Panels should be removed from the grid suspension system, laid flat for painting, and allowed to dry thoroughly while still flat before re-installation.

This method eliminates the costly operations of masking walls and covering furniture. It also provides for easier cleaning and/or repainting of the grid while the panels are out being repainted.

First remove loose dust from the material with a brush or vacuum cleaner attachment. Thin the paint only as much as necessary. If it is too thick for proper spraying, follow the paint manufacturer's recommendations for thinning paint.

When spray painting, apply the paint with a stream directed perpendicularly to the surface of the material, moving the gun back and forth to get a uniform coating. Under normal conditions, one coat should be sufficient.

With the computerized colour matching systems now available, it is recommended that a sample of the ceiling panel to be colour matched be taken to the paint store.

Armstrong Touch-up Paint is intended to hide minor scratches and nicks in the surface and to cover field tegular edges of mineral fiber panels.

### Treating Cut Tegular Edges

All field-cut edges "exposed to view" should be coloured to match the factory finish. Armstrong Ceiling or commercial grade Touch-up Paint is recommended.

## 12. CLEANING

Armstrong mineral ceiling panels can be cleaned using a variety of types and methods.

Normally ceiling tiles do not need to be cleaned for the duration of their use in most standard applications.

Nevertheless, it may be necessary to clean local soiling.

### 12.1 Dry cleaning

For standard cleaning of dust, loose dirt or deposits, a normal vacuum cleaner with a soft brush can be used.

Alternatively, dirt and smudges etc. may be removed with an ordinary gum (white pencil) eraser or "magic foam" eraser.

### 12.2 Damp cleaning

For more intensive cleaning, the surfaces can be damp cleaned. This should be carried out with a wrung-out soft cloth or sponge. After cleaning, the surface should be dried with a soft cloth.

### 12.3 Wet cleaning

Refer to separate Cleaning Guideline for Bioguard Acoustic OP RH100 ceiling panels.

## MORE INFORMATION

For complete technical information, detail drawings, CAD design assistance, installation information and many other technical services, call your local Armstrong Ceilings representative.

For the latest product selection and specification data, visit [armstrongceilings.com.au](http://armstrongceilings.com.au)

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📞 NSW (02) 9666 6688

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✉️ [sales@grayking.com.au](mailto:sales@grayking.com.au)

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