

INSTALLATION & MAINTENANCE

SITE CONDITIONS, STORAGE & HANDLING

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

Armstrong packaging of ceiling tile and grid varies from material to material, but all is 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. Long grid and trim cartons should not span between points as any load applied mid-span may cause product damage. Site storage of such items should be flat, preferably on a suitable pallet (supporting entire length), without any additional top loading. Mineral fibre tiles are packed as cartons with a cardboard sleeve and then shrink-wrapped; however the shrink-wrapping is not waterproof. Grid sections, soft fibre tiles, wood veneer tiles and metal tiles are all packed in full cardboard cartons. Cartons of mineral fibre and soft fibre tiles should be stored and stacked with the tiles face up (horizontally) and without any other heavy objects on top of them. Cartons of wood veneer and metal tiles should be stored with the tiles standing on their sides (vertically). 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.

Although temperature and humidity recommendations vary by product, the space must be cleared of debris and, in general, should be enclosed. The ceiling panels should be kept clean, dry, and protected from the elements. Panels should be removed from cartons 24 hours before installation to allow them to adjust to interior conditions

INSTALLATION CONDITIONS

The Armstrong range of ceiling tiles provides the industry with a choice of humidity resistance performances which will affect their suitability for different installation conditions. Armstrong suspended ceilings and Soundsoak wall panels are interior finishes and the conditions during the installation within the building should reflect this. Armstrong recommend during installation that the relative humidity (RH %) should not exceed 99% for RH99 HumiGuard Plus panels, within a 0–49°C temperature range. RH100 HumiGuard Max products can be installed in conditions of 100% RH, including “standing water” applications, within 0–49°C.

INSTALLATION

Cartons should be opened carefully with the cardboard sleeve on mineral fibre cartons released to ensure that tiles can be removed without damaging the edges of the tiles. It is recommended that mineral

fibre tiles are cut with a sharp knife. Unnecessary breakage of tiles should be avoided. Blue Tongue and Axiom aluminium extruded sections are best cut using a powered saw with the correct blade for the material. Metal tiles will often need to be cut at room perimeters or junctions with columns and when this is necessary it is important that a flat clean cut edge results. This is best achieved using aviation snips, electric shears, or a high speed jig or bandsaw. The cut edge should then be masked by an appropriate perimeter section and held down using wedges or spring clips as necessary. Care is necessary when handling and installing tiles, especially metal and soft fibre tiles, to prevent finger marking of the surface from soiled or greasy hands, and where appropriate, clean cotton gloves should be worn.

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

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.

MAINTENANCE AND CLEANING

Armstrong mineral fibre tiles are marked on the back for ease of identification and maintenance.

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 mineral fibre tiles can be repaired using commercially available fillers and Armstrong touch-up 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.

CLEANING

Different ceiling tile materials have different requirements for cleaning.

Mineral fibre, Metal or Soft Fibre ceiling tiles should first have any surface dust removed using a soft brush or with a vacuum cleaner. Vacuum cleaner attachments such as those designed for upholstery do the best job. Pencil marks, smudges etc. may be removed with an ordinary gum eraser. Alternatively, a moist cloth or sponge dampened in water containing a mild soap or diluted detergent can be used. The sponge should contain as little water as possible and the ceiling must not be made wet. The process should be repeated again in a similar manner with a damp sponge but with clean water only to remove any residual soap or detergent. No abrasive cleaners should be used.

Armstrong Bioguard Acoustic and Orcal Bioguard products have been tested for resistance to disinfectants with different active ingredients:

- Hexanios (active agent – Quaternary Ammonium)
- Minncare (active agent – Hydrogen Peroxide)
- Klercide CR B (active agent – Chlorine)

Ceramaguard tiles are unaffected by moisture and may be cleaned with increased amounts of water. As Ceramaguard can absorb moisture without detriment to the stability of the tile consideration should be given to the additional weight of the ceiling and the required centres of main runners.

Soundsoak wall panels should first be vacuumed to remove loose dust. Surface stains may be treated with a dry cleaning fluid or dry shampoo. Cleaning agents of these types should be tested on a small unobtrusive area prior to wider application. Abrasive cleaners should not be used and the panel or tile must not be made wet during cleaning.

Specialist contractors offer cleaning services using chemical solutions. Where these methods are employed, it is recommended that a trial operation is first carried out so that the result and overall effect can be assessed. It is best in this case to conduct such a test in a noncritical area of the building.

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/m². Only roll insulation is recommended and must be applied perpendicularly to the cross tees with the grid supporting the weight of the insulation.

PAINTING

Most Armstrong ceilings and walls can be repainted by spraying.

Painting Precautions

Armstrong cannot guarantee that the published surface burning characteristics, 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 DuraBrite® acoustical membrane on the Ultima® and Optima® 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 .05 to .10 reduction in NRC.

Spray painting will result in a more uniform coating on embossed or irregular surfaces. Panels should be removed from the grid suspension system, laid flat for painting, and allowed to dry thoroughly while still flat before reinstallation. 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 color matching systems now available, it is recommended that a sample of the ceiling panel to be color matched be taken to the paint store.

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

Treating Cut Tegular Edges

All field-cut edges “exposed to view” should be colored to match the factory finish. Armstrong SuperCoat Ceiling Touch-up Paint is recommended.