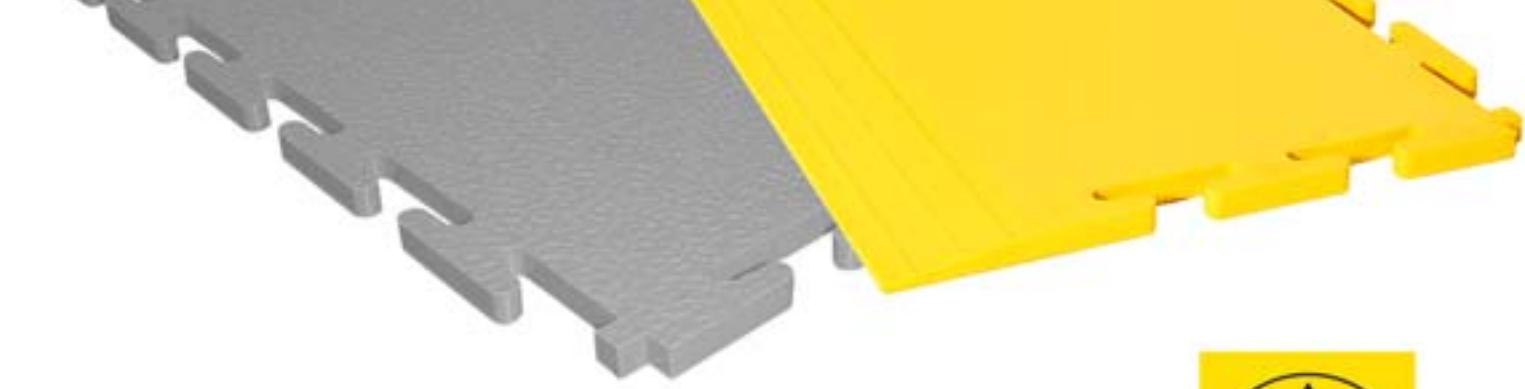
**Medical Equipment Assembly**
Ecotile Constat was laid over a grounded copper tape grid to provide the conductive floor required during the assembly of electro static sensitive equipment.

# **Constat** APPLICATION SPOTLIGHT

**1** **ESD Sensitive Area**
Ecotile Constat is used without grounding kits in this cell to provide an anti-static floor ensuring no sparks are generated that could cause an explosion.

**2** **Production area, manufacturing electronics equipment for the defence and aviation industry**
Ecotile Constat was installed over damaged and uneven vinyl tiles in an old mill to create an anti-static and dust free production environment.



ESD PROTECTED

# ecotile Constat

Constat is the anti-static / conductive version of the standard Ecotile. It is a 7mm thick interlocking tile that is only available in light grey with the embossed surface texture and due to the manufacturing process is more flexible than standard Ecotile so offering even better anti-fatigue properties.

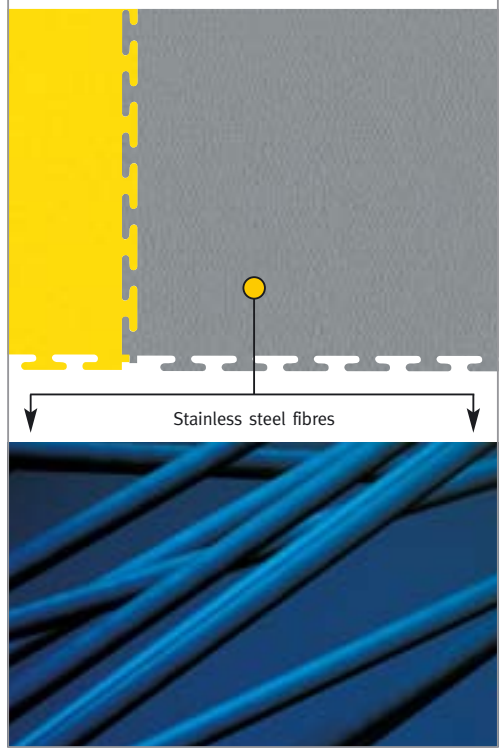
Constat can be dry laid over any hard surface making it very quick and easy to install, providing an instant hardwearing, attractive anti-static floor that can be used immediately. Constat is manufactured using the injection-moulding process during which thousands of tiny metal fibres are added to the PVC. This method ensures that the fibres are evenly distributed right the way through the plastic guaranteeing the permanent anti-static performance of each tile. This means Constat is an extremely low maintenance anti-static flooring in comparison with many alternatives available on the market today.

Constat is also the most versatile anti-static floor available because it can be used in conjunction with an ordinary Ecotile floor. If an anti-static floor is only required at workstations for example the Constat tiles can be inserted into the Ecotile floor at those points. This is an extremely cost-effective and efficient use of the interlocking tile system as you only use the anti-static tiles where you need them.

In areas where a conductive floor is required as opposed to just an anti-static floor, Constat can easily be grounded with a simple grounding kit. A rectangle of copper wire is laid under the tiles every 30m² with a conductive strip to ground that section of tiles.

## Ecotile Anti-Static & Conductive Floor Tiles.

This new and patented technique involves adding tiny stainless steel fibres to the PVC base material at the point of manufacture to produce a permanent anti-static / conductive floor. The PVC base material containing the metal fibres is then injection moulded into the tooling to form the anti-static and conductive 500mm x 500mm interlocking floor tile.



The requirements for floors used for grounding personnel (primary grounding) have recently changed. The resistance limit to ground is specified in the new standard as less than 3.5 x $10^7$ Ohms, including the resistance of the operative and foot strap/shoes. (BS EN 61340-5-1:2001, Clauses 5.2.3 and Table 1). This is a technical recommendation, to ensure the protection of devices sensitive down to 100v ESD levels.

This change is based on the view that floors with leakage resistance values at the upper end of the limit set out in BS EN 100015-1 (›7.5 x $10^5$ and ‹$10^9$ Ohms) provide a discharge path that is too slow to guarantee that there is no accumulation of charge above 100V on moving people and trolleys.

To comply with the revised recommendation it may be necessary to install a new floor covering as best practice in terms of technical performance.

**Note:** Most floor coverings are not manufactured to comply with the more stringent requirement detailed above. Claims that a product does comply must be qualified to a specified leakage resistance window. Consideration must also be given to the choice of footwear or grounding straps. We guarantee that the earth leakage resistance will be maintained, throughout the useful life of the floor material.

## Features and Performance

**Anti-static Performance**
3.0 x $10^5$ ‹ Rs ‹ 3.4 x $10^5$

**Conductive Performance**
3.6 x $10^5$ ‹ Rg ‹9.5 x $10^5$

**Charging during running test***
‹2kV (1.1kV)

**Hardness**
78 Shore A or 89-92 Shore A

**Resistance to Hot Objects / Solder**
Good

**Chemical / Solvent Resistance**
Good

**Flammability**
Non Combustible - BS476 Part 7 Class 1

* A conductive strip is required to earth the tiles, one earth point required per 30$m^2$ of floor area to be covered or one earth point per section of tiles installed (whichever is the lower).