(35) Xh
2002

# SAS System 120
# Suspended Ceiling System Draft Specification

The suspended ceiling shall comprise of SAS Emac System 120 ceiling tiles supported by a galvanised Emac spring tee clip-in suspension system allowing access to the ceiling void.

The tiles shall be manufactured from Zintec mild steel with an electrostatically applied smooth polyester powder finish to RAL9010 white/special colour*

All products shall be manufactured to BS476 Part 6 1989 and Part 7 1987 of the Building Regulations to meet Class O Fire Propagation and Surface Spread of Flame.

The tiles shall be (size) ..... X ..... mm Plain / Perforated*
Plain Border / Overall Perforation*

Perforation reference ..... to give an open area of ..... %.

An aluminium foil backed tissue faced acoustic pad with a density of ..... Kg/m³ and a thickness of ..... mm shall be fitted into the back of each tile.

Specific tiles will be supplied with factory formed apertures to allow easy integration of light fittings and services. Apertures within perforated tiles shall be set within a square or rectangular plain zone. Where required, additional support will be given to light fittings and other services using stiffeners within the tile and / Emac hangers / Emac channels fixed to the systems secondary grid.
Aperture Dimensions

..... X ..... mm
..... X ..... mm
..... X ..... mm

Stiffeners required Yes / No*

**** Delete as applicable***

The galvanised Emac spring tee is fixed to a pre-engineered galvanised Emac channel section type at 1500 / 2000mm* maximum centres by a channel bracket, which is suspended on galvanised pre-engineered Emac hangers, at 1500mm maximum centres from a suitable top fixing (minimum fixing zone tile to soffit being 83mm).

Perimeter shadowgap (type TCA0128) / Channel (type 108) used in conjunction with hold down wedges (type 109) should be used to support full and cut tiles. For junctions and perimeters with plasterboard SAS aluminium extrusion type TCA0145 / TRUSJ150 / TWA6052 / TCA1118* should be used

**Acoustic Performance - Absorption**
For perforated tiles with mineral wool infills the random incidence sound absorption coefficients (ISO) when tested in accordance with BS3638 the sound absorption shall be:

| Frequency Hz | 125 | 250 | 500 | 1000 | 2000 | 4000 | NRC |
|---|---|---|---|---|---|---|---|
| Coefficient (1) | 0.62 | 0.73 | 0.78 | 0.83 | 1.00 | 1.00 | 0.84 |
| Coefficient | | | | | | | |

(1) Sound absorption based on perforation type 1522 with a 18mm, 80Kg/m³ acoustic infill.

**Acoustic Performance - Attenuation**
When tested in accordance with BS2750 Part 9 the sound attenuation shall be ..... dB normalised level difference Dnc,w.

**Note:** Emac System 150 can be designed to provide a wide range of sound attenuation performances by incorporating various combinations of rockwool infill, plasterboard and steel backing plates within the tile structure. For specific requirements please contact our technical department.

**Thermal Insulation**
Each infill shall be capable of achieving thermal conductivity of not more than 0.36 W/m°C

**Installation**
The whole system to be installed in accordance with the recommendations of BS8290 Part 3: 1991 Code of Practice on Installation and Maintenance and the current Codes of Practice.

**Material and Labour Cost Savings**
The use of Emac suspension channels at 2000mm centres as opposed to 1500mm centres results in a saving of 25% on the number of top fixings and suspension angles used. This could result in a 30% saving on labour, compared with traditional installation costs.