DOUBLE SKIN

TITAN

PANEL WEIGHT IS NOMINALLY 17 KILOS PER SQ METRE EXCLUDING GLASS

Generally, **Titan** would be used for clean areas where air and dust transmission is an issue, where cleaning needs to be carried out therefore joints and ledges are issues, or simply to provide a superior product to standard double skin. The flush glazing plays a major part in this. Glazing is 6mm toughened (double). The finish (as on all ranges) is inert and non-shedding. Specific paint finishes are available on request. Elan can be used for the same purposes but usually for a lower cleanroom class and may require more sealing on site.

Titan has a composite infill which is bonded into all panels and doors and is non fire rated. The sound reduction with all voids infilled will be approximately 32dB. At an extra cost, this can also be supplied by a rockwool infill in order to improve sound and thermal performance, however the infill would not be bonded.

Standard panels:-

2440 x 1000 solid – approximately 37 kilos
2440 x 1000 with glazed aperture – approximately 46 kilos
Walk on type ceiling panel up to 150mm thick per sq metre polystyrene – 29.25 kilos

Glazed apertures in panels: 940 x 1000, 940 x 900, 940 x 500, 940 x 300, 1600 x 500
Glazed apertures in doors: 595 x 445, 1400 x 200, 450 diameter

Door sizes overall frame: 2023h x 1000w, 2023h x 1851w

Panel sizes up to 3600 x 1000; glazed apertures as above; double doors maximum sizes 2023h x 2400w or 3000h x 1851w

Apertures can be pre-formed and framed if necessary; boxes can be inset for electrical sockets, etc; internal wireways can be formed by cutting through the internal honeycomb core on site in order to insert plastic conduit.

Floor and head track types depend upon the situation, but the most common solution is a deep head channel and shallow floor channel. We can offer alternatives when required. Testing/ validation is done only after air handling is carried out however an end result of 30 Pascals pressure cascade testing is easily achievable.

Doors - we do not have a fully sealed design; we would normally fit a teardrop type rubber seal around the frame and a 2 part rubber seal or a drop down type seal to the

threshold. We would be happy to incorporate a complete door and frame by others within our design.

Ceilings - available are Elan 50mm thick non load bearing panels, lay in grid tiles either wired or using self supporting beams, or Isowall panels which can span large distances without beams and retain a facility for a maintenance person load. Depending upon the system, lights can be inset or fixed underside. Air conditioning equipment can be sited above dependant on weight but positioning is subject to technical advice. Maximum span depends upon the thickness and core of the panels; cut-outs, for instance 1200 x 600 for lights, can be put into a panel providing that they take up no more than 50% of the width of the panel and that the pane each side remains whole. A large amount of cut-outs would need consideration for extra support, i.e. continuous steel bracing on top of the ceiling, placed each side of the cut-out and spanning the total length.

ELAN

PANEL WEIGHT IS NOMINALLY 17 KILOS PER SQ METRE EXCLUDING GLASS

Standard **Elan** has a composite infill and is non fire rated. The sound reduction with all voids infilled will be approximately 32dB. The infill is bonded into all hinged doors. At an extra cost, this can also be supplied by a rockwool infill in order to improve sound (up to approximately 36dB) and thermal performance. The sound reduction for fire rated Elan with all voids infilled will be approximately 36dB. **See separate sheet on fire rating.**

Elan can also be supplied with a perforated sheet to one face and tissue covered mineral wool infill. This should improve the effects of machine sound within an enclosure where personnel are working. There is also a thermal transmission (U) value ranging from .580 for a solid panel down to 1.637 for a solid/glazed/solid panel.

Ceilings – as stated above in the Titan paragraph

Glazing – we always use safety material. The most popular and economical is 6.4mm laminated. Fire rating needs a wired glass (6mm Pyroshield safety) for doors and single glazing. Double glazing should either be two pieces of Pyroshield or one piece of 6.4mm laminated and one piece of 6mm Pyrocet (but then needs ceramic seal). Polycarbonate can be used in Elan and Sigma but should be 6mm thick.