

## **Advantages of INVISI-GARD**

### **1. Dynamic impact test.**

The Australian Standard AS5041 requires security screens and doors to resist five consecutive impacts, each of 100 Joules (J), without any breach whatsoever of the interface between the aluminium frame and the mesh infill. Any breach, regardless of length, constitutes failure.

Invisi-Gard easily meets this requirement and can resist in excess of 50 consecutive impacts, each of 100 J without failure.

### **2. Materials**

Invisi-Gard utilises only marine grade 316 stainless steel mesh with a wire tensile strength of 900 MPa and a wire diameter of 0.8mm

The Crimsafe product utilises grade 304, a lesser grade of stainless steel in its product with wire tensile strength of 800 MPa and a wire diameter of 0.9mm.

Crimsafe argue that once the mesh is powdercoated, there is no difference between grade 304 and grade 316. The fact is that all powdercoating is porous and allows the ingress of moisture and other pollutants through to the base metal. In addition, chemically, grade 316 contains 2% Molybdenum which increases its resistance to corrosion by 20 to 30% over the lesser grade 304.

Both Invisi-Gard and Crimsafe meshes pass the requirements of the knife shear test referenced in AS5041.

Air flow and optical clarity is greater in the Invisi-Gard product as a result of the finer wire weave.

### **3. Fabrication**

Invisi-Gard utilises a system of PVC wedges to retain the mesh in the aluminium frame via pressure around the full perimeter of the unit. These wedges completely isolate the stainless steel and aluminium from each other and so avoid the possibility of galvanic corrosion from occurring.

Crimsafe employs the use of discrete stainless steel screws to hold a clamp in place and grip the mesh in this fashion. These screws however bite through the mesh and also bite into the aluminium frame ensuring that dissimilar metals

come into contact with each other, and the potential for galvanic corrosion to occur is enhanced.

Invisi-Gard can be disassembled and the materials re-used should the need arise to service the screen or door.

The Invisi-Gard assembly process allows the mesh to be tightly sprung in the frame reducing the visible bowing of the mesh, and increasing aesthetic appeal. This in particular allows for large units to be fabricated without the need for midrails. In large stacker doors as an example, the panels do not scuff each other in service due to the tightness of the mesh in its frame. The Crimsafe assembly process does not tighten the mesh and as a result, the mesh bows in a sloppy fashion once the product is installed.

#### **4. Aesthetics**

Invisi-Gard assemblies have no visible fixings. The frames used are slim and attractive. In comparison, the Crimsafe product has a bulkier look and the fixings are poorly hidden under a snap on cover.

As mentioned earlier, the mesh in Invisi-Gard products is sprung tightly and feels taught in service, whereas the Crimsafe product is not.