## GUIDE 021: SEALANTS

Sealant used within metal cladding construction has three main functions:

i) To prevent ingress of rain and snow through external joints.
ii) To assist with the air-tightness of the building envelope
iii) To prevent warm moisture vapour from the internal environment reaching the cooler outer surfaces and forming as condensate.

As well as having to adequately perform these design duties, the chosen sealant must also:

- Remain effective for the design life of the building.
- Not require maintenance.
- Resist ageing, weathering and ultra violet radiation.
- Be Water repellent
- Be compatible with the material it is being applied to.
- Have good adhesion to surfaces which are damp, dusty or greasy (Typical site conditions).
- Elastically adhere to overlapping materials rather than restrain.
- Have limited resistance to compression
- Remain within the lap, resisting slump and creep.
- Be capable of being drilled and accepting screw fasteners without displacement.
- Accommodate extreme movement in shear due temperature changes.
- Not suffer undue shrinkage.

### General Application

End joints of sealants, particularly strip types (tape or beads) must be watertight with no gaps forming after installation caused by sealant contraction.

Sealant should be applied in a continuous line of the correct breadth and thickness and taken into all profile corners without ‘bridging’. Where a continuous line is not possible, strips should be side lapped by 50mm to prevent gaping.

Sealant should be applied to the top face of the under-lapping sheet first. Attention should then be paid so as not to disturb when placing the overlapping sheet over the top.