Technical Update 13



Measurement of displacement

Clauses 3.5.2.12 and 3.6.2.3 of the CWCT Standard for systemised building envelopes limit the amount of movement of framing members at support points.

The limits are expressed in terms of the overall range of movement from position at maximum positive load to position at maximum negative load. The limits are expressed in this way as a significant element of any movement is likely to be due to clearance between components of the connection between the curtain wall and the primary structure which may allow slip under loads applied as bedding in pulses prior to the application of the test load.

Assessment of compliance with these requirements requires a complete record of movement to be obtained and not just movement during application of the main test loads.

The test procedure in BS EN 12179 states that the gauges are to be reset to zero after the preparation pulses and before the application of the main positive test load. This procedure is repeated for the negative load cycle.

Following this procedure any slip occurring during the application of the preparatory pulses for the negative test cycle would not be recorded and it would not be possible to determine compliance with clauses 3.5.2.12 and 3.6.2.3. It is therefore necessary to ensure that, if gauges are reset to zero at any time between the start of application of the positive load cycle and the removal of the negative test load, the gauge readings are recorded before resetting them so that a continuous record of the movement of the wall can be obtained.