



Technical Services Bulletin

APPROVED DOCUMENT 'L' DESIGN CONSIDERATION

The introduction of more stringent thermal performance requirements with the April 2006 revision of Building Regulations approved document 'L' is promoting 'air-tightness' as a prerequisite to achieving satisfactory thermal performance within new developments. This additional 'air-tightness' often creates pressure differentials within constructions that if not adequately considered, can result in additional stress on ceiling systems, causing ceiling 'flex'.

CEILING 'FLEX'

Ceiling 'flex' is not a problem specific to Knauf Ceiling Systems but a function of the 'holistic' building design. Ceiling 'flex' of Knauf systems is not detrimental to the designed performance of the system, however the designer should consider the effect of air-tightness, ventilation and introducing pressure differentials within the construction.

The pressure differential is generally created when a door is opened causing the pressure levels to change within the adjoining rooms. This change in pressure has an effect on the lightest element of the construction, which is generally the ceiling element, causing it to deflect. This deflection in some instances can result in noise emission during deflection but again this is not detrimental to the designed performance of the system.

ADDITIONAL CONSIDERATIONS

It may be possible with due consideration to design out these undesirable effects by incorporating vents in the appropriate building elements. If there is a concern that this issue may not have been considered adequately at the design stage, then it is possible to fix the Knauf Primary Support Channel to the Knauf MF Ceiling Channel with Knauf Jackpoint Waferhead Screws to provide additional reassurance.

GOOD PRACTICE

For systems installed in these conditions it is good practice to use Knauf Angle Section for hanging ceiling systems and to check the level of 'play' between supporting members prior to boarding. Care should be taken when installing the MF connecting clips as they can be deformed during installation leaving loose connection points which can be susceptible to deflection.

For and on behalf of
KNAUF UK GmbH

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