

## LETTER OF CONFORMITY BTC 340LC

### DUTY RATING ESTIMATION OF GYPROC METAL STUD PARTITION SYSTEMS INCORPORATING GYPROC RESILIENT BAR.

#### LINING DESCRIPTION

**Gyproc Metal Stud Partition systems incorporating Gyproc Studs at maximum 600mm centres, with or without Isowool insulation in the stud cavity, clad one or both sides with Gyproc Resilient Bar fixed horizontally at maximum 600mm centres and lined with various Gyproc plasterboard permutations.**

The exact systems described have not been subjected to duty rating grade tests in accordance with BS5234: Part 2: 1992. However, experience has shown that there are three determining factors in the duty rating grade achievable by a Gyproc metal stud system.

*Perforation by a small hard body impactor:* the hard body impact performance of a metal stud lining is a function of the board lining and in extreme examples the stiffness of the stud section. In the proposed cases it is reasonable to assume that the board lining configurations will withstand perforation at the appropriate duty impact energy level as detailed below. Tests have shown that a single layer of 12.5mm Gyproc Wallboard is capable of withstanding the medium duty perforation, single layer 15mm Gyproc Fireline and Gyproc Duraline XL Board the heavy duty perforation and double layer 12.5mm Gyproc Wallboard the severe duty perforation. Therefore the proposed linings should pass.

*Partition stiffness:* the stiffness of the metal stud can influence the system duty rating. However, so long as the height of the lining system as calculated using a limiting deflection criteria of L/240 for a UDL of 200 Pa is not exceeded then the system will meet the medium duty stiffness requirements.

*Door slamming:* The door slamming requirements can only be met by following closely the door detail specification available from British Gypsum Limited.

**Customer:** British Gypsum Limited

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**RESULTS using GYPROC RESILIENT BAR**

1 x 12.5mm or 1 x 15mm Gyproc Wallboard or 1 x 12.5mm Gyproc Fireline Board/Gyproc SoundBloc = **MEDIUM DUTY**

1 x 15mm Gyproc Fireline Board or 1 x 12.5mm Gyproc Duraline XL Board = **HEAVY DUTY**

2 x 12.5mm or 2 x 15mm Gyproc Wallboard/Gyproc Fireline Board/Gyproc SoundBloc  
= **SEVERE DUTY**

**LIMITATIONS**

This letter is issued on the basis of the information to hand at the time of issue. If any contradictory evidence becomes available to the test house then the letter will be unconditionally withdrawn. Similarly, the letter is invalidated if the proposed construction is subsequently tested since the actual test data is deemed to take precedence over an expressed opinion. The opinions and interpretations expressed in this letter are outside the scope of the NAMAS/UKAS accreditation.

Author

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**Customer:** British Gypsum Limited