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GD37 SEALING OF END LAP DETAILS IN METAL WALL CLADDING CONSTRUCTIONS

1.0 INTRODUCTION

This document is intended to provide generic guidance on the sealing of end lap details in metal wall cladding systems. The guidance should be read in conjunction with each manufacturer's own instructions which must be followed together with their sealing specifications for specific profiles and systems.

2.0 EXTERNAL WALL END AND SIDE LAPS

End laps and side laps in external wall sheets are generally unsealed. Side stitching might be required to maintain closeness of fit.

Profiled sheet wall end laps should be not less than 100 mm in length when unsealed to reduce the risk of wind driven rain ingress. Where profiled sheets are fixed horizontally, the end laps should be sealed and not less than 50 mm in length.

In special conditions, such as in coastal environments, the manufacturer's recommendations should be followed.

In the case of twin skin systems where the external wall sheets are not sealed, the side and end laps of the liner sheets must be sealed to provide an air barrier using generic method of sealing. In addition, the end lap of the liner sheet should also be sealed to the purlins at points of intersection and junctions via internal flashings and the incorporation of shaped filler blocks.

Buildings constructed using a single skin arrangement may have an air leakage requirement; if so, the side and end laps should be sealed plus the end laps of the sheets should also be sealed to the purlins at the points of intersection and junctions via internal flashings and the incorporation of filler blocks.

For sandwich panels, the panel side laps and end laps should be sealed to provide an air barrier as part of the overall air leakage requirement of the building. This applies to both horizontally and vertically laid sandwich panels.

Firewall side laps and end laps should be fixed and sealed in accordance with the manufacturer's fire test report. Additional requirements may apply to wall constructions used for fire protection.

CONCLUSION

It is essential to ensure that the end laps of the cladding system and perimeter joints are correctly sealed and well installed. This will lessen air leakage, provide vapour control and retain heat. Getting it wrong at the construction stage will cause a building to fail, resulting in expensive remedial work.

Manufacturers are best placed to offer advice about their products and any variation from their published data during the design or construction process could result in the component or system failing prematurely or not complying with the guarantee or warranty conditions. Any uncertainty about the use or application of a product or system should be referred to the manufacturer for detailed written advice.

In addition, design information can be obtained from any of the independent roofing and cladding inspectors featured on the MCRMA web site.

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