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Testing. Advising. Assuring.

Addendum No. 11 to WARRES No. 114560

1 Introduction

A sponsored Fire Propagation test in accordance with BS 476: Part 6: 1989 was performed on the 29th June 2000, on specimens which were described as follows:

The specimens comprised a mild steel sheet having two identical faces and a thickness of 1.5mm.

The specimens were tested with a 12.5mm airspace at the back of the product by testing over non-combustible perimeter battens 20mm wide and 12.5mm thick.

The test is fully reported in WARRES No. 114560 and a Fire Propagation Index, I, of 0.0 and a Sub-index, i_1, of 0.0 was achieved.

In practice, the 1.5mm thick mild steel sheet would incorporate a bonded and sealed, vertically orientated overlap joint. To guarantee a strong permanent bond across the joint, rivets are also utilised. The specimens which were tested and reported in WARRES No. 114560 did not include a joint. The sponsor required to determine that the inclusion of such a joint, would not adversely affect the performance of the product when tested in accordance with BS 476: Part 6: 1989+A1: 2009. Exploratory investigations have been conducted to indicate whether the 1.5mm thick mild steel sheet incorporating a 25mm wide vertically orientated overlap joint, bonded with “Intustrip (DP 24-1043)” sealant, secured with rivets centrally located within the joint at 50mm centres and sealed with “Intustrip (DP 24-1043)” sealant, could achieve a similar level of performance.

2 Exploratory Tests

With the exception of the inclusion of the overlap joint, the specimens were identical in all respects to the specimens which were subjected to the test reported in WARRES No. 114560.

Each specimen comprised two pieces of 1.5mm thick, flat, mild steel sheet, one having a length of 225mm and a width of 112.5mm and the other a length of 225mm and a width of 137.5mm. The two separate pieces were joined together utilising a 25mm wide, vertically orientated, overlapping joint. The two elements of which were bonded and secured together with “Intustrip (DP 24-1043)” sealant and rivets respectively, the rivets being centrally located within the overlap joint at 50mm centres. The exposed edges of the joint were then sealed utilising a single bead of “Intustrip (DP 24-1043)”. The exposed edge of the overlapping joint on the test face of the specimens was located centrally in the vertical orientation.

3 **Results Of Tests**

The following results were obtained during the exploratory tests:

Specimen Number	Fire Propagation Index, S	Sub-index, s_1	Sub-index, s_2	Sub-index, s_3
1	0.1	0.0	0.1	0.0

4 **Opinion**

On the basis of the information which has been generated during the exploratory tests, it is our opinion that the inclusion of a 25mm wide vertically orientated overlap joint in the 1.5mm thick mild steel sheet, as described above, will have no deleterious effect on the performance of that product when subjected to the test procedures defined in BS 476: Part 6: 1989+A1: 2009.

5 **Validity Of Opinion**

The above opinion relates only to the case where the 1.5mm thick steel sheet incorporates an overlap joint that has been bonded and sealed as described above. Any changes in the nature of the system would invalidate the opinion.

This addendum should be read in conjunction with WARRES No. 114560.

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Approved

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