Certificate of Test

No. 1575

This is to certify that the element of construction described below was tested by CSIRO Materials Science and Engineering in accordance with British Standard 476, Fire tests on building materials and structures Parts 20 (General Principals) & 24, Method for determination of the fire-resistance of ventilation ducts – 1987 on behalf of:

Passive Fire Protection Sdn Bhd
No. 27, Jalan Pengacara U1/48
Temasya Industrial Park, 40150 Shah Alam, Selangor Darul Ehsan

A full description of the test specimen and the complete test results are detailed in CSIRO Materials Science and Engineering sponsored investigation report numbered FSH 0993.

Product Name: WinDuct – External exposure

Description:

The duct was constructed from nominal 1.0 mm thick galvanised mild steel sheet nominally 1000-mm wide x 300-mm high in 1200-mm long sections. The duct sections were joined with TDC joints to SMACNA HVAC Duct Construction Standards with corners of the ducts connected with M10 bolts. There were additional self tapping M8 screws through the top and bottom flanges at the centre. Four TDC clips were fitted to the top and bottom flanges and one to each side flange. The duct was supported by nominal 50 mm x 50 mm x 5 mm mild steel angles 1250-mm long and spaced at approximately 1200-mm centres. The angles were suspended from the roof of the furnace with 12-mm diameter threaded rods passing one each side of the duct. The rods had a nut under the angle and were fixed into mild steel angles frames at the top. The duct passed through a hole in the wall nominally 1100-mm wide x 400-mm high. The gap between the wall and duct was filled with Rockwool mineral fibre of bulk density 120 kg/m^3 to the full thickness of the wall. Additional 100 mm x 100 mm x 0.6 mm thick galvanised mild steel formed angles sections were fixed to both sides of the wall on all four sides. The angles were secured to the brick walls by M8 masonry anchors with four to the horizontal side and two each to the vertical side. The angle was secured to the duct with metal self tapping screws with four to each horizontal and two to each vertical side of the duct. The duct was painted with "Wincoat" intumescent paint to the thickness of not less than 0.6 mm (600 microns).

The element of construction described above satisfied the following criteria for fire-resistance for the period stated.

Stability	120 minutes (No failure)
Integrity	120 minutes (No failure)
Insulation	35 minutes

Testing Officer: Paul Bano-Chapman Date of Test: 5 July 2003

Issued on the 6th day of March 2013 without alterations or additions. This Certificate supersedes Certificate No 1575 issued on 23 May 2008.

B. Roddy

Brett Roddy
Team Leader, Fire Testing

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