

ASFP Advisory Note 1: Version 06-01-20120
SAFE USE OF HORIZONTAL FIRE STOPPING
Avoiding accidents and damage

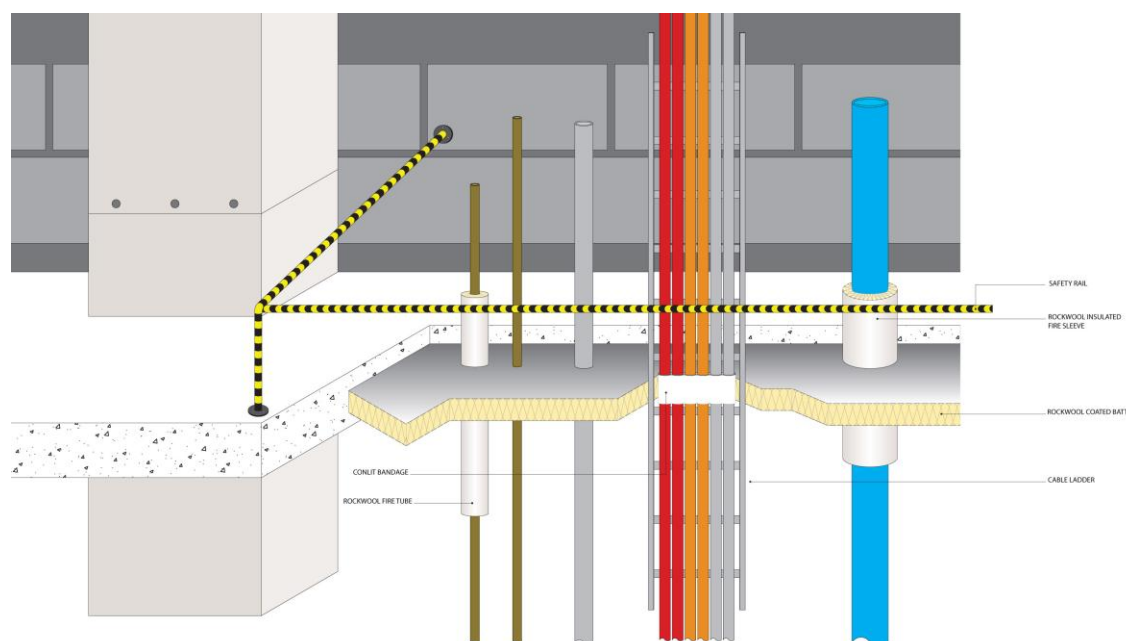


Some fire stopping systems used to seal penetrations in floors may be unable to support temporary loads, such as foot traffic, etc, and care must therefore be taken to establish whether or not the installed system is load bearing to standardised levels (See below).

Note that BS EN 1366-3 does not make provision for testing load bearing penetration seals. Consideration shall therefore be given to fire tests under loaded conditions to BS EN 1365-2

All wet-applied fire stopping systems will take time to cure and harden before the permitted load can be tolerated. During the curing time, the installer shall display suitable warning signage and temporary barriers to prevent accidental access onto the horizontal surface and to avoid risk of injury. Any such loading could also be detrimental to the fire performance of the seal.

If the cured fire stopping seal is not load bearing to acceptable standards (see table below), all subsequent access onto the fire stopping shall be prevented by a permanent guard rail (see figure) and suitable signage. Subsequent access shall only be allowed if additional walkway systems e.g. the use of grids are provided to prevent the surface of the seal being over loaded. *Advice should always be obtained from the system manufacturer or from a competent person or organisation.*



Example of safety rail guarding against access to a non-loadbearing seal
(Courtesy of Rockwool UK Ltd)

LOADS ON HORIZONTAL FIRE STOPPING

The code of practice for dead and imposed loads in buildings is provided by standards, such as PD 6688-1: 2011 where dead loads are calculated from BS 648

or from actual known weights of the materials to be used. In the case of building type A for 'Offices and work areas not covered elsewhere' the minimum imposed floor loads to be expected include figures such as:-

Example of use	Uniformly distributed load [kN/m ²]	Concentrated Load [kN]
Work rooms (light industrial) without storage	2.5	1.8
Offices for general use	2.5	2.7
Kitchens, laundries, laboratories	3.0	4.5
Mainframe computer rooms	3.5	4.5
Machinery halls	4.0	4.5
Factories, workshops (general industrial)	5.0	4.5

IMPORTANT: This document is intended to raise some issues for consideration in any health and safety risk assessment. It may not cover all eventualities.