FIRESTOP CENTRE
INNOVATIVE FIRESTOP SOLUTIONS

From: Duncan Alabaster <duncan.alabaster@polyseam.com>
Sent: Tuesday, 3 March 2020 4:37 AM
To: Greg Hand <greg@firestopcentre.co.nz>
Cc: graham@firestopcentre.co.nz
Subject: RE: Protecta Collars.

Hi Greg,
Thanks for your email.
We believe that our Protecta FR Collars fitted to both sides of the wall will reinstate the fire resistance for wall build ups as follows:

1. **REI 15 wall**
   10mm Standard GIB board on both sides of timber studs (70 – 90mm depth) giving a minimum wall depth of 90mm.

2. **REI 30 WALL**
   13mm Standard GIB board on both sides of metal studs (35mm wide) giving an overall wall depth of 51mm.

This would only apply to pipe sizes 32 – 160mm outside diameter with the pipe wall thicknesses and range of standard plastic types specified within our test data.

We have recently tested this range of plastic pipes (up to 160mm diameter) within letter boxed (framed and lined) apertures sealed with a single 50mm thick (double sided) FR Board. The collars were fixed to both sides of the FR Board with pigtail screws (50mm long) and these achieved up to EI60 (U/C) with pipes up to 110mm diameter and EI60 (C/C) with greater than 110mm diameter.

We have also looked at plastic pipes in 75mm wide walls comprising of 50mm metal stud and a single layer of 12.5mm thick board on each side of the wall. All plastic pipes achieved EI30 (E60).

The approval document does state:
The specific elements of construction that the system Protecta FR Collar may be used to provide a penetration seal in, are as follows:

Flexible walls: The wall must have a minimum thickness of 100 mm and comprise steel studs lined on both faces with minimum 2 layers of 12.5 mm thick boards

Protecta FR Collars have recently been proven to maintain the fire resistance with thinner wall constructions and a single 50mm thick FR Board in a 100mm wide wall for EI30 and EI60 applications respectively.

In our opinion, we believe that the FR Collar will maintain a fire resistance of EI15 with a single layer of 10mm GIB board on each side of timber studs (70 – 90mm thick) and a fire resistance of EI30 with a 35mm metal stud with a single layer of GIB board on each side of the stud.

The supporting construction must be separately classified for the required fire resistance period.

All separation distances and other construction details of seals contained within the approvals shall be complied with.

With timber studs: no part of the penetration seal may be closer than 100 mm to a stud, and minimum 100 mm of insulation of class A1 or A2 according to EN 13501-1 must be provided within the cavity between the penetration seal and the stud.

I hope this gives some comfort in using the FR Collars with these non-standard wall construction types.

Best regards

Duncan Alabaster
Technical Manager

Polyseam.

Polyseam Ltd.
15 St Andrews Road
Huddersfield
UK. HD1 6SB

M: +44 (0)778 095 2441
E: duncan.alabaster@polyseam.com

Intelligent Chemistry.