

Summary - Penetration Fire Testing

Report: FP14153-01-1 BRANZ

Purpose

This is a quick summary of recent additional fire testing that has been carried out in support of “penetrations” through a gypsum plasterboard lined wall using both Gorilla FR Expanding Foam and Firecryl Acrylic Sealant. This was carried out in accordance with AS1530.4:2014.

Wall Construction – for a 60min fire rating

- 13mm GIB Fyrelite – both sides
- 64mm Steel Studs.

Outcome

Specimen No.	Specimen Details	Integrity (minutes)	Insulation (minutes)	FRL*
1	125NB Ø Steel Pipe Firecryl Acrylic Sealant	93 NF	19	-/60/-
2	20 mm Ø Copper Pipe Firecryl Acrylic Sealant	93 NF	9	-/60/-
3	Cable Tray: <ul style="list-style-type: none"> • SAT6DS PVC Co-Axial Cable Bundle • 4 mm² 3C TPS Cable Bundle • C-C6-SLDBLUE 4Pair Ethernet Cable Bundle • Cat5e 4P+2SM Fibre Cable Bundle Firecryl Acrylic Sealant Gorilla Fire Rated Expanding Foam	88	58	-/60/30
4	2.5 mm ² & 4 mm ² 3C TPS Cable Bundle Firecryl Acrylic Sealant	93 NF	61	-/60/60
5	2.5 mm ² & 4 mm ² 3C TPS Cable Bundle Firecryl Acrylic Sealant	93 NF	46	-/60/30
6	2.5 mm ² & 4 mm ² 3C TPS Cable Bundle Firecryl Acrylic Sealant	93 NF	53	-/60/30
7	<ul style="list-style-type: none"> • SAT6DS PVC Co-Axial Cable Bundle • C-C6-SLDBLUE 4Pair Ethernet Cable Bundle • Cat5e 4P+2SM Fibre Cable Bundle Firecryl Acrylic Sealant	78	60	-/60/60
8	C-C6-SLDBLUE 4Pair Ethernet Cable Bundle Firecryl Acrylic Sealant	66	52	-/60/30
9	Cat5e 4P+2SM Fibre Cable Firecryl Acrylic Sealant	93 NF	67	-/60/60

The test was terminated after 93 minutes.

NF = No Failure

What this means with Penetrations for Soudal

- All configurations achieved a 60-minute fire rating

Specimen 1 -2

- Both pipes through a wall meet the fire resistance of 60 minutes
 - Due to the heat conductivity of the metals, they do not have an insulation rating.
 - Does require a “Fire Sleeve” to be compliant

Specimen 3

- Cable Tray - through a wall meet the fire resistance of 60 Minutes
 - Due to the heat conductivity of the metal cable tray the insulation rating is only 30 minutes.
 - Does require a “Fire Sleeve” to be compliant

Specimen 4 - 9

- Utilizing **Gorilla Firecryl as the sealant** without the need for a fire sleeve or a fire rated expanding foam.
- Various Power Cables and Communications Cables - through a wall meet the fire resistance of 60 minutes
- Check the configuration of cables to determine the insulation rating.

Always remember as Soudal Sales and technical representatives any advice given is with the statement, followed up in writing, that the customer needs to pass this by their Fire Engineer to ensure that they are comfortable with the use of Gorilla Fire-Rated Products.