Intumescent Seals

THERM-A-PILLOW
Product Data Sheet

Introduction

Building service cables often need to be modified during the life of a building to meet changing requirements and building uses. Where these services pass through fire conmpartement walls frequent service changes can be a challenge to the maintainance of adequate integrity of the building's fire compartments. THERM-A-PILLOW provides a simple and reusable solution to satisfy this requirement.

Description

THERM-A-PILLOW is a silver grey heavy duty silicone coated glass fabric bag containing a mixture of perlite, gypsum and graphite intumescent material. The activation temperature of the intumescent contents is approximately 180oC. THERM- A-PILLOW has a normal in service temperature range of -20oC to +120oC THERM-A-PILLOW has a typical density of 0.31g/cm3 and is avaibale in arange of 4 sizes.

Application

THERM-A-PILLOW is suitable for temporary and permanent cable penetration fire seals in fire compartment walls. The penetrating cables, which may vary in size and type may be supported on cable trays or cable ladders.
Before installation of THERM-A-PILLOW, remove any loose debris within the penetration to be sealed.

Ensure the penetrating cables are adequately on either side of the penetration i.e. do not rely on the THERM-A-PILLOW to provide cable support.
Install THERM-A-PILOW starting at the bottom of the penetration with the long dimension through the wall. Select suitable sizes of THERM-A-PILLOW to ensure a close fit around services, using the largest appropriate size for each location. Stagger the joins in each layer of THERM-A-PILLOW.
Check for visible gaps, using small pillows to ensure the penetration is adequately sealed.

Performance

THERM-A-PILLOW will provide 120mins fire resitance integrity when sealing around PVC sheathed copper cables up to 80mm diamater. Smaller diameter cables may be sealed in bunches up to 140mm diamater. Cable ladders up to 300mm wide and cable trays up to 500mm wide may be used. See details over page for further guidance.

Cable Type and Size	Integrity (E)	Insulation (I)
4x185mm^2 Cu, XLPE/PVC, Ø55mm	120 mins	60 mins
4x185mm^2 Cu, EPR/CSP, Ø80mm	120 mins	120 mins
1x185mm^2 Cu, XLPE/PVC, Ø24mm	120 mins	60 mins
5x1.5mm^2 Cu, PVC/PVC, bunch 20, Ø140mm	120 mins	120 mins
5x1.5mm^2 Cu, EPR/CSP, bunch 10, Ø140mm	120 mins	120 mins
5x1.5mm^2 Cu, XLPE/EVA, bunch 10, Ø140mm	120 mins	120 mins
1x95mm^2 Cu, XLPE/PVC, Ø21mm	120 mins	120 mins
4x95mm^2 Cu, XLPE/PVC, Ø45mm	120 mins	90 mins
4x95mm^2 Cu, CPR/CSP, Ø60mm	120 mins	90 mins

Continued overleaf

Cable Type and Size	Integrity (E)	Insulation (I)
20x2x0.6mm screened comms, PVC/PVC, bunch Ø100mm	120 mins	120 mins
1x95mm^2 Cu, PVC/un-sheathed, Ø21mm	120 mins	120 mins
1x185mm^2 Cu, PVC/un-sheathed, Ø23mm	120 mins	120 mins
Cable ladders up to 300mm	120 mins	120 mins
Perforated cable tray up to 500mm	120 mins	120 mins
Unperfortated cable tray up to 500mm	120 mins	120 mins

Availability

THERM-A-PILLOW is available in the following nominal sizes:

Small	320mm x 50mm x 25mm
Small-Medium	320mm x 100mm x 30mm
Large-Medium	320mm x 150mm x 30mm
Large	320mm x 200mm x 30mm

The approximate number of THERM-A-PILLOWs to seal a 600mm x 60mm opening is:

Free Area	No. Pillows
79% (21% concentration of cables)	48 lge, 64 lge-med, 95 sml-med, 228 sml
100%	60 lge, 80 lge-med, 120 sml-med, 288 sml

Test Evidence

THERM-A-PILLOW has been tested in accordance with BSEN1266-3:2009 Annex A and classified in accordance with BSEN13501-2:2007 A1:2009

Contacting Us

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Intumescent Fire Seals Association

* Colours may vary slightly between examples illustrated in print, online and actual examples - which will depend upon lighting conditions in situ.