



## 3M™ Fire Barrier Pillows

### Product Description



The 3M Fire Barrier Pillow is a self-contained, highly intumescent firestop product for use in through-penetration firestops. Simple to install, compressing pillows prior to insertion secures them in the opening, no wire mesh required. 3M Fire Barrier Pillows offer excellent performance achieving Fire Resistance Ratings of up to 3 hours.

### Product Features



- Graphite free composition
- Available in three sizes
- Easy to install
- Easy retrofit – remove and reuse pillows as needed
- Easy to inspect
- Testing in accordance with AS1530.4, EN1366, and ASTM E814 (UL Listed).

## Physical Properties

Typical Physical Properties	
Colour	3M Red with white label
Density	95kg/m <sup>3</sup>
Heat Expansion Begins	200°C (392°F)
Significant Expansion Begins	280°C (536°F)
Volume Expansion	18% (Calculated)

## Availability

3M™ Fire Barrier Pillows are available from Authorized 3M Fire Protection Products Distributors.

3M Order Code	Packing	Unit/Case
98040054219	50.8mm 101.6mm x 228.6mm (2" x 4" x 9")	24
98040054227	50.8mm x 152.4mm x 228.6mm (2" x 6" x 9")	16
98040054235	76.2mm x 152.4mm 228.6mm (3" x 6" x 9")	20

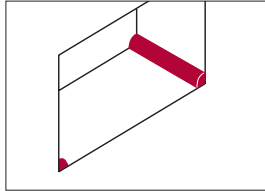
## Maintenance

Inspection: Installations should be inspected periodically for subsequent damage. Replace any damaged pillows.

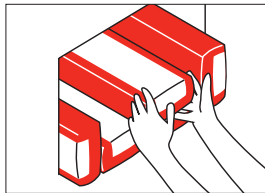
**Recommended: Store in a dry warehouse environment. Pallets should not be stacked.**



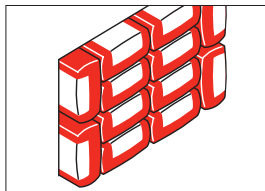
## Installation Techniques:



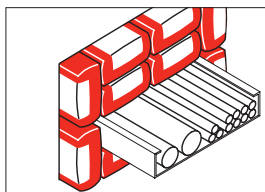
Apply 3M™ Fire Barrier Moldable Putty+ in all corners.



Install pillows lengthwise through the opening, make sure that the label side is placed directly against the framed opening.



Completely fill the penetration compressing pillows prior to insertion to lock them in place. The 3M Red logo should be visible to the installer on each pillow.



The smaller-sized pillows are used for smaller voids and spaces created by cable trays and pipes. 3M Fire Barrier Moldable Putty+ is used to seal any small openings greater than a few millimetres between pillows, cables, cable trays or pipes.

3M Fire Barrier Pillows are completely reusable. Simply remove the desired pillow(s) by inserting fingers on both sides, compress and release pillows, then reuse as required.

## Performance Specifications for Installers

Australian Standard FRLs			Fire Resistance Level (FRL)			
3M Fire Barrier System	Building Element	Penetration Size	Blank (Unpenetrated) Seal	PVC Insulated Cables, Cable trays and Cable bundles	Copper or Steel Pipes Small* 15mm diameter or smaller 0.9mm Wall thickness or thicker	Steel Pipes* 34mm diameter or smaller 3.5mm wall thickness or thicker
	<b>Floor:</b> Concrete slab. <i>Minimum 120mm thickness</i>	Maximum opening 425mm by 300mm Maximum Area 0.128m <sup>2</sup>	-/120/90	-/180/30	-/180/30	-/180/30
3M Fire Barrier Pillows	<b>Wall:</b> Plasterboard Dry Wall, solid masonry, hollow masonry or concrete construction. <i>Minimum 116mm thickness</i>	Maximum opening 600mm by 800mm Maximum Area 0.480m <sup>2</sup>	-/120/30	-/120/30	-/120/30	-/120/30



In order to achieve the above FRLs you must ensure that the Fire Barrier Pillows are installed as per the Installation Techniques and the building element you are installing into has an FRL performance equal to or better than that of the Fire Barrier Pillows. The Installation Techniques can be found on the final page of this document.

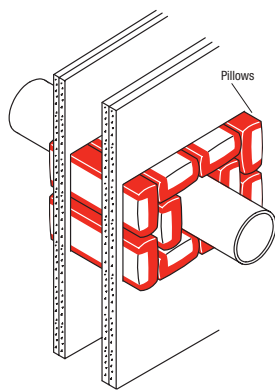
### What does FRL mean?

FRL stands for 'Fire Resistance Level'. For example, an FRL of '-/120/90' indicates:

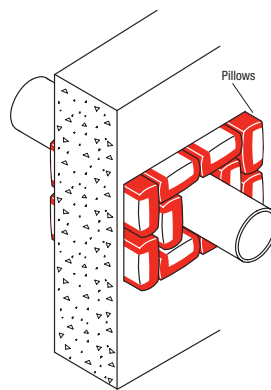
- **Structural Adequacy.** The first dash '-' indicates that Fire Barrier Pillows are non load bearing
- **Integrity.** The middle number '120' indicates for how many minutes the Fire Barrier Pillows can resist the passage of flames and hot gasses
- **Insulation.** The last number '90' indicates how many minutes it takes the unexposed face to heat up by more than 140°C.

### Metal Pipes\*

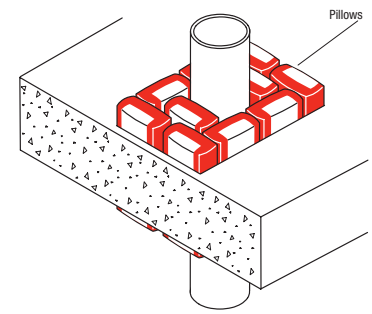
\* With or without up to 19mm Armaflex insulation



Dry Wall 116mm  
Copper: 15mm dia, 0.91mm wall: FRL: -/120/30  
Steel: 34mm dia, 3.5mm wall: FRL: -/120/30



Solid Masonry, Hollow Masonry or Concrete Wall 116mm  
Copper: 15mm dia, 0.91mm wall: FRL: -/180/30  
Steel: 34mm dia, 3.5mm wall: FRL: -/180/30

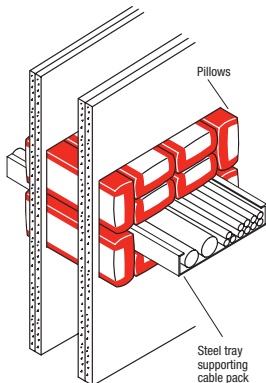


Concrete Floor 120mm  
Copper: 15mm dia, 0.91mm wall: FRL: -/180/30  
Steel: 34mm dia, 3.5mm wall: FRL: -/180/30

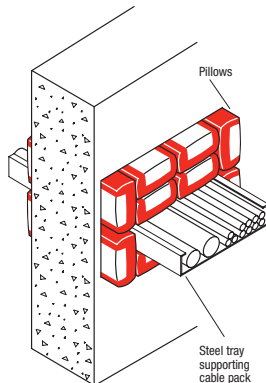
# Performance Specifications for Engineers and Specifiers

3M Fire Barrier Pillows have been tested in accordance with AS1530.4-2005 and assessed in accordance with AS4072.1-2005 under BWA Report No: 23264. The following illustrations provide a summary of the test results for D1 and D2 cable configurations, metal pipes and blank (unpenetrated) openings with Fire Barrier Pillows installed as per the Installation Techniques. Specifications for standard D1 and D2 cable configurations can be found in AS1530.4-2005 Appendix D.

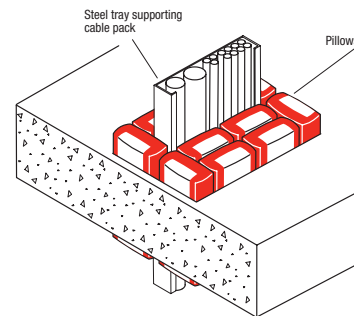
## D1 Cable Pack – Power Transmission Cables.



Dry Wall 116mm – FRL: -/120/30

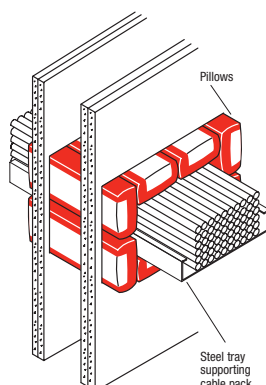


Solid Masonry, Hollow Masonry or  
Concrete Wall 116mm – FRL: -/120/30

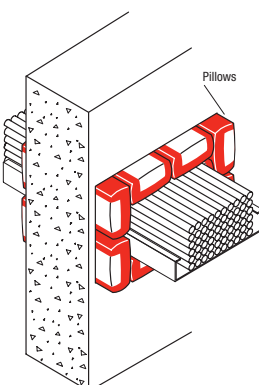


Concrete Floor 120mm – FRL: -/180/60

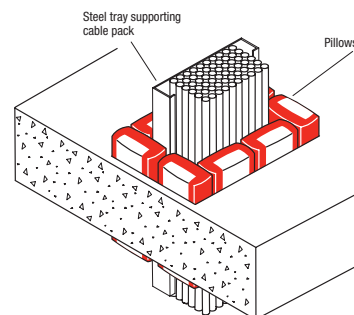
## D2 Cable Pack – Telecom Cables.



Dry Wall 116mm – FRL: - /120/30

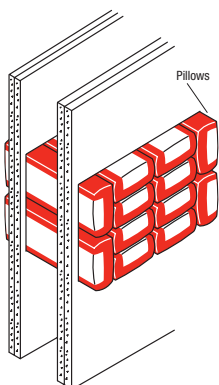


Solid Masonry, Hollow Masonry or  
Concrete Wall 116mm – FRL: -/120/30

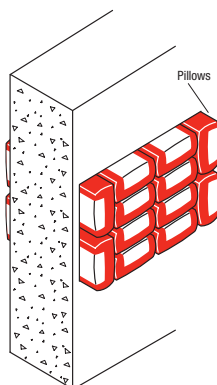


Concrete Floor 120mm – FRL: -/180/30

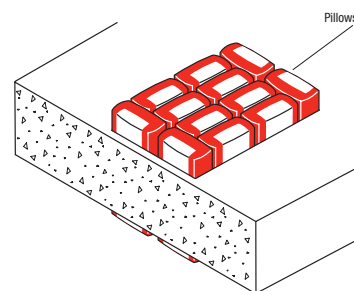
## Blank Openings (unpenetrated)



Dry Wall 116mm – FRL: -/120/30



Solid Masonry, Hollow Masonry or  
Concrete Wall 116mm – FRL: -/120/30



Concrete Floor 120mm – FRL: -/120/90

3M™ Fire Barrier Self-Locking Pillows can be field cut if desired.



Resealing 3M™ Fire Barrier Self-Locking Pillows can be accomplished by using either the removed original outer cover, minus contents, or by use of two inch wide carton sealing/packaging tape.



Re-sealed 3M™ Fire Barrier Self-Locking Pillows ready for installation.



#### **Warranty; Limited Remedy**

This product will be free from defects in material and manufacture for a period of ninety (90) days from the date of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application. If this product is defective within the warranty period stated above, your exclusive remedy and 3M's sole obligation shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product.

#### **Limited Liability**

**Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**