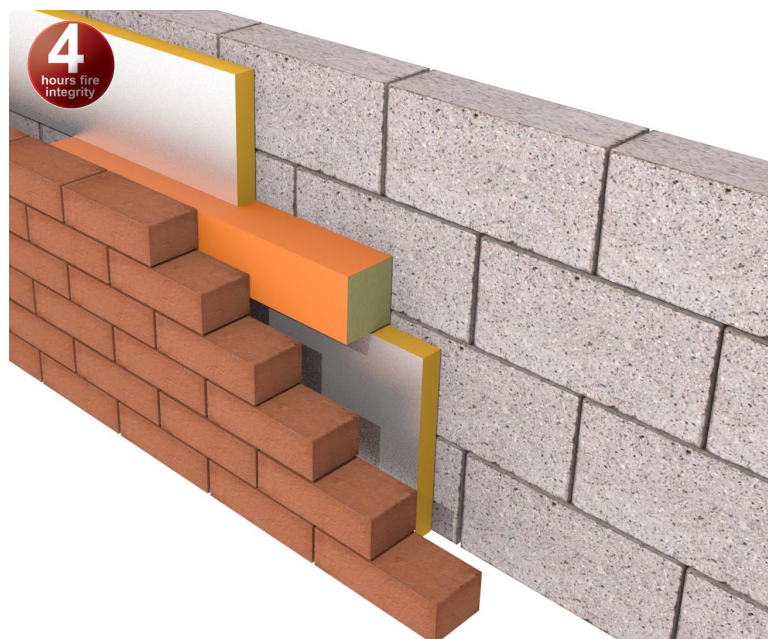




# Cavity Stop Socks & TCBs



## Key Features

- Up to four hours fire integrity
- Specified in semi-detached, apartments and major projects
- Complies to Robust Detail Part E and Building Regulations
- Excellent acoustic properties
- Available without flanges (CSS) or with flanges (TCB)
- Can be manufactured to suit cavity widths up to 300mm

Left: Cavity Stop Sock installed horizontally in masonry construction

## Description

ARC Cavity Stop Socks and TCBs have been designed to restrict the spread of smoke and flames within external masonry and timber frame walls, and to further minimise the effect of flanking noise pollution at wall junctions. They are produced from low resin, non-combustible rockfibre mineral wool and are sleeved in 50 micron polythene for on-site weather protection.

## Installation

ARC Cavity Stop Socks and TCBs are designed to be compression fitted within the cavity and are easily installed both vertically and horizontally during construction. Care should be taken to ensure butt joints are tightly fitted to maintain fire integrity. The cavity barrier must fully fill the cavity from the inner to outer leaf and any cavity insulation must be cut back. When using ARC TCBs for timber frame construction, the flanges are fixed to the frame using clout nails at 150mm centres. In vertical applications, both flangers are fixed, in horizontal applications only the top flange should be fixed. At door and window openings it is recommended the horizontal barrier should overlap the vertical barrier to ensure a close butted fit can be achieved.

## Fire Properties

ARC Cavity Stop Socks and TCBs are manufactured using rockfibre mineral wool which achieves a fire classification of Euroclass A1 as defined in BS EN 13501-1.

ARC Cavity Stop Socks and TCBs are tested at Warrington Fire Research and Chiltern International Fire, achieving up to four hours fire integrity with traditional masonry construction and up to one hour in a timber frame construction. These tests comply with BS 476: Part 20: 1987 and BSEN 1366-4: 2006, using the test method stated EGOLF TC2 N421 (fire resistance for cavity barriers).  
Warrington Fire Research certificate number: 169804 Chiltern International Fire certificate number: 10039

## Thermal Properties

ARC's rockfibre mineral wool insulation has a thermal conductivity of 0.037W/mK.



## Thermal Bypass at Party Wall Junction

Considerable heat loss can occur where the party wall cavity meets the external cavity, as stated in Building Regulations L1A & L2A, and Section 6 of Scottish Building Standards.

To achieve a zero U-value, the party wall cavity must be fully filled with a suitable insulation, and effective perimeter edge sealing must be provided around all exposed edges of the cavity. ARC's T-Barrier in conjunction with a standard TCB used to top out the cavity, and when fitted in line with our recommendations, will provide an effective seal of the party wall cavity.

Party Wall Cavity	U-Value
Unfilled cavity with no effective edge sealing	0.50W/mK
Unfilled cavity with effective edge sealing	0.20W/mK
Fully filled cavity with effective edge sealing	0.00W/mK

## Acoustic Properties

The rockfibre mineral wool insulation used in the manufacture of ARC Cavity Stop Socks & TCBs has the following acoustic absorption properties. Figures quoted were achieved with a solid backing.

Thickness	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz
40mm	0.19	0.46	0.79	0.92	1.00	1.00
100mm	0.57	1.00	1.00	1.00	1.00	1.00

Part E Robust Details compliance:

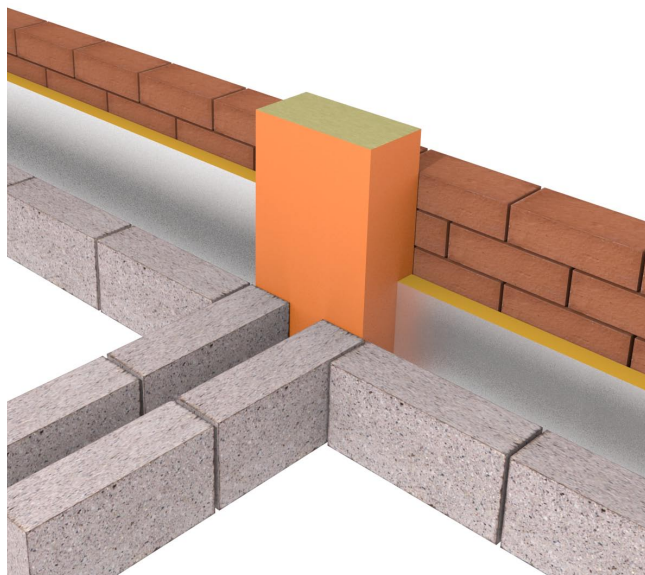
	Separating Wall/ Party Wall	Separating Floor
Masonry	E-WM 1-21	N/A
Timber Frame	E-WT 1-4	E-FT 1-6
Concrete	N/A	E-FC 1-14

## Standards

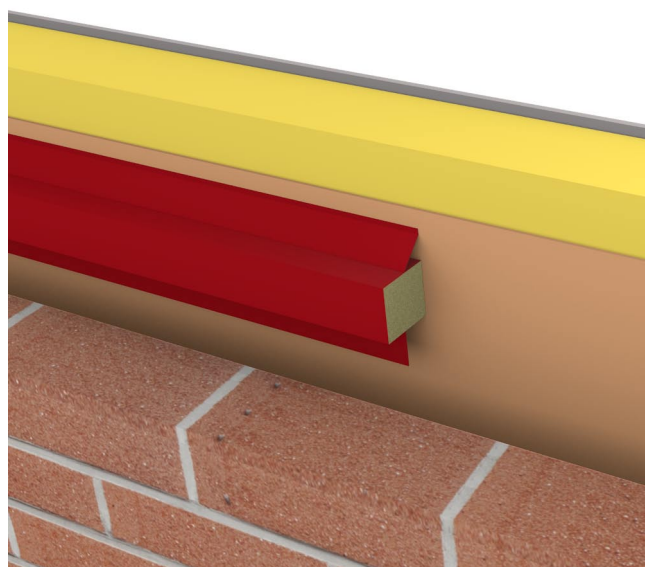
The rockfibre mineral wool used in the manufacture of ARC Cavity Stop Socks and TCBs conforms to BS EN 13162 and EN16001 Energy Management Systems.

## Storage and Packaging

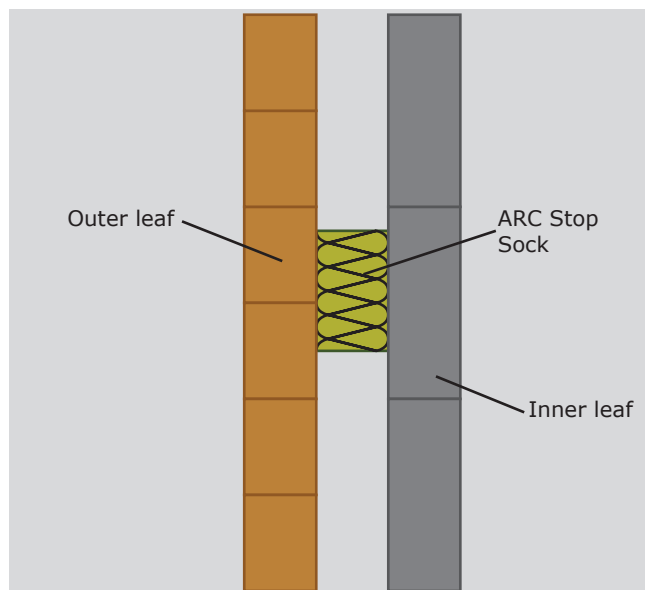
ARC Cavity Stop Socks and TCBs are supplied in polythene packs which are designed for transporting and protecting the products. It is not recommended that the packs are stored in direct sunlight as the polythene which encapsulates the barriers can be damaged. When storing the barriers for longer periods of time it is recommended the product should be stored indoors, or under cover.



Above: Cavity Stop Sock installed vertically in traditional masonry construction



Above: TCB installed horizontally in timber frame construction



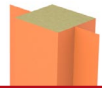
Above: Plan view of ARC Cavity Stop Sock installed in traditional masonry construction

## Dimensions & Packaging Specification: Cavity Stop Socks (No flange)



Product Code	Suitable for Cavity Width	CSS Colour	Masonry Fire Rating	Dimensions	Pieces per pack	Packs per pallet
<b>CSS75</b>	75mm	Green	4 hrs	90 x 75 x 1200mm	35	12
<b>CSS80</b>	80mm	Green	4 hrs	95 x 75 x 1200mm	35	12
<b>CSS85</b>	85mm	Green	4 hrs	100 x 100 x 1200mm	24	10
<b>CSS90</b>	90mm	Green	4 hrs	110 x 100 x 1200mm	20	10
<b>CSS95</b>	95mm	Green	4 hrs	110 x 100 x 1200mm	20	10
<b>CSS100</b>	100mm	Green	4 hrs	120 x 100 x 1200mm	20	10
<b>CSS105</b>	105mm	Green	4 hrs	120 x 120 x 1200mm	15	10
<b>CSS110</b>	110mm	Lt Blue	4 hrs	125 x 120 x 1200mm	15	10
<b>CSS115</b>	115mm	Lt Blue	4 hrs	130 x 120 x 1200mm	15	10
<b>CSS120</b>	120mm	Lt Blue	4 hrs	135 x 120 x 1200mm	15	10
<b>CSS125</b>	125mm	Lt Blue	4 hrs	135 x 120 x 1200mm	15	10
<b>CSS130</b>	130mm	Lt Blue	4 hrs	140 x 120 x 1200mm	15	10
<b>CSS135</b>	135mm	Lt Blue	4 hrs	145 x 120 x 1200mm	15	10
<b>CSS140</b>	140mm	Lt Blue	4 hrs	150 x 120 x 1200mm	15	10
<b>CSS145</b>	145mm	Lt Blue	4 hrs	155 x 120 x 1200mm	15	8
<b>CSS150</b>	150mm	Lt Blue	4 hrs	160 x 120 x 1200mm	12	8
<b>CSS155</b>	155mm	Lt Blue	2 hrs	165 x 140 x 1200mm	12	10
<b>CSS160</b>	160mm	Lt Blue	2 hrs	170 x 140 x 1200mm	12	10
<b>CSS165</b>	165mm	Lt Blue	2 hrs	175 x 140 x 1200mm	10	10
<b>CSS170</b>	170mm	Lt Blue	2 hrs	180 x 140 x 1200mm	10	10
<b>CSS175</b>	175mm	Lt Blue	2 hrs	185 x 140 x 1200mm	9	10
<b>CSS180</b>	180mm	Lt Blue	2 hrs	190 x 140 x 1200mm	9	10
<b>CSS185</b>	185mm	Red	2 hrs	195 x 140 x 1200mm	9	10
<b>CSS190</b>	190mm	Red	2 hrs	200 x 140 x 1200mm	9	10
<b>CSS195</b>	195mm	Red	2 hrs	205 x 140 x 1200mm	9	10
<b>CSS200</b>	200mm	Red	2 hrs	210 x 140 x 1200mm	8	10
<b>ARC Party Wall Cavity Fire Barriers</b>						
<b>PWCSS75</b>	75mm	Red	4 hrs	80 x 250 x 1200mm	10	10
<b>PWCSS100</b>	100mm	Red	4 hrs	105 x 250 x 1200mm	8	10
<b>PWCSS120</b>	120mm	Red	4 hrs	125 x 250 x 1200mm	8	10
<b>PWCSS125</b>	125mm	Red	4 hrs	130 x 250 x 1200mm	6	10
<b>PWCSS140</b>	140mm	Red	4 hrs	145 x 250 x 1200mm	6	10
<b>PWCSS150</b>	150mm	Red	4 hrs	155 x 250 x 1200mm	6	10
<b>PWCSS200</b>	200mm	Red	4 hrs	205 x 250 x 1200mm	4	10
<b>CSS300/65</b>	65mm	Red	4 hrs	300 x 65 x 1200mm	12	10
<b>CSS300/75</b>	75mm	Red	4 hrs	300 x 75 x 1200mm	12	10
<b>CSS300/100</b>	100mm	Red	4 hrs	300 x 100 x 1200mm	8	10
<b>CSS300/115</b>	115mm	Red	4 hrs	300 x 115 x 1200mm	8	10
<b>CSS300/120</b>	120mm	Red	4 hrs	300 x 120 x 1200mm	8	10
<b>CSS300/140</b>	140mm	Red	4 hrs	300 x 140 x 1200mm	6	10
<b>CSS300/150</b>	150mm	Red	4 hrs	300 x 150 x 1200mm	6	10

## Dimensions & Packaging Specification: TCBs (Flanged)



Product Code	Suitable for Cavity Width	TCB Colour	Masonry Fire Rating	Timber Frame Fire Rating	Dimensions	Pieces per pack	Packs per pallet
<b>TCB50</b>	50mm	Red	4 hrs	1 hr	65 x 65 x 1200mm	40	12
<b>TCB75</b>	75mm	Green	4 hrs	1 hr	90 x 75 x 1200mm	35	12
<b>TCB80</b>	80mm	Green	4 hrs	1 hr	95 x 75 x 1200mm	35	12
<b>TCB85</b>	85mm	Orange	4 hrs	1 hr	100 x 100 x 1200mm	24	10
<b>TCB90</b>	90mm	Orange	4 hrs	1 hr	110 x 100 x 1200mm	20	10
<b>TCB95</b>	95mm	Orange	4 hrs	1 hr	110 x 100 x 1200mm	20	10
<b>TCB100</b>	100mm	Orange	4 hrs	1 hr	120 x 100 x 1200mm	20	10
<b>TCB105</b>	105mm	Yellow	4 hrs	1 hr	120 x 120 x 1200mm	15	10
<b>TCB110</b>	110mm	Yellow	4 hrs	1 hr	125 x 120 x 1200mm	15	10
<b>TCB115</b>	115mm	Yellow	4 hrs	1 hr	130 x 120 x 1200mm	15	10
<b>TCB120</b>	120mm	Yellow	4 hrs	1 hr	135 x 120 x 1200mm	15	10
<b>TCB125</b>	125mm	Yellow	4 hrs	1 hr	135 x 120 x 1200mm	15	10
<b>TCB130</b>	130mm	Yellow	4 hrs	1 hr	140 x 120 x 1200mm	15	10
<b>TCB135</b>	135mm	Yellow	4 hrs	1 hr	145 x 120 x 1200mm	15	10
<b>TCB140</b>	140mm	Yellow	4 hrs	1 hr	150 x 120 x 1200mm	15	10
<b>TCB145</b>	145mm	Yellow	4 hrs	1 hr	155 x 120 x 1200mm	15	8
<b>TCB150</b>	150mm	Yellow	4 hrs	1 hr	160 x 120 x 1200mm	12	8
<b>TCB155</b>	155mm	Yellow	2 hrs	N/A	165 x 140 x 1200mm	12	10
<b>TCB160</b>	160mm	Yellow	2 hrs	N/A	170 x 140 x 1200mm	12	10
<b>TCB165</b>	165mm	Yellow	2 hrs	N/A	175 x 140 x 1200mm	10	10
<b>TCB170</b>	170mm	Yellow	2 hrs	N/A	180 x 140 x 1200mm	10	10
<b>TCB175</b>	175mm	Yellow	2 hrs	N/A	185 x 140 x 1200mm	9	10
<b>TCB180</b>	180mm	Yellow	2 hrs	N/A	190 x 140 x 1200mm	9	10
<b>TCB185</b>	185mm	White	2 hrs	N/A	195 x 140 x 1200mm	9	10
<b>TCB190</b>	190mm	White	2 hrs	N/A	200 x 140 x 1200mm	9	10
<b>TCB195</b>	195mm	White	2 hrs	N/A	205 x 140 x 1200mm	9	10
<b>TCB200</b>	200mm	White	2 hrs	N/A	210 x 140 x 1200mm	8	10
<b>ARC Party Wall Cavity Fire Barriers</b>							
<b>PWTCB75</b>	75mm	White	4 hrs	1 hr	80 x 250 x 1200mm	10	10
<b>PWTCB100</b>	100mm	White	4 hrs	1 hr	105 x 250 x 1200mm	8	10
<b>PWTCB120</b>	120mm	White	4 hrs	1 hr	125 x 250 x 1200mm	8	10
<b>PWTCB125</b>	125mm	White	4 hrs	1 hr	130 x 250 x 1200mm	6	10
<b>PWTCB140</b>	140mm	White	4 hrs	1 hr	145 x 250 x 1200mm	6	10
<b>PWTCB150</b>	150mm	White	4 hrs	1 hr	155 x 250 x 1200mm	6	10
<b>PWTCB200</b>	200mm	White	4 hrs	1 hr	205 x 250 x 1200mm	4	10
<b>TCB300/65</b>	65mm	White	4 hrs	1 hr	300 x 65 x 1200mm	12	10
<b>TCB300/75</b>	75mm	White	4 hrs	1 hr	300 x 75 x 1200mm	12	10
<b>TCB300/100</b>	100mm	White	4 hrs	1 hr	300 x 100 x 1200mm	8	10
<b>TCB300/115</b>	115mm	White	4 hrs	1 hr	300 x 115 x 1200mm	8	10
<b>TCB300/120</b>	120mm	White	4 hrs	1 hr	300 x 120 x 1200mm	8	10
<b>TCB300/140</b>	140mm	White	4 hrs	1 hr	300 x 140 x 1200mm	6	10
<b>TCB300/150</b>	150mm	White	4 hrs	1 hr	300 x 150 x 1200mm	6	10

### **Environment**

ARC's rockfibre mineral wool has no CFCs or HCFCs involved in the manufacturing process and represents no known threat to the environment, and is classed as zero ODP and zero GWP.

ARC Cavity Stop Socks & TCBs have a Green Guide rating of A+.

### **Health and Safety**

ARC Building Solutions has an approved Health and Safety Policy and is committed to working and supplying products safely. ARC's rockfibre mineral wool is not classed as a possible human carcinogen. We have assessed products as required by Substances Hazardous to Health Regulations (COSHH). An ARC COSHH data sheet is available and can be downloaded from ARC's website.