



## **FIREPRO®**

# **Fire Tube**

### Fire protection for structural steel

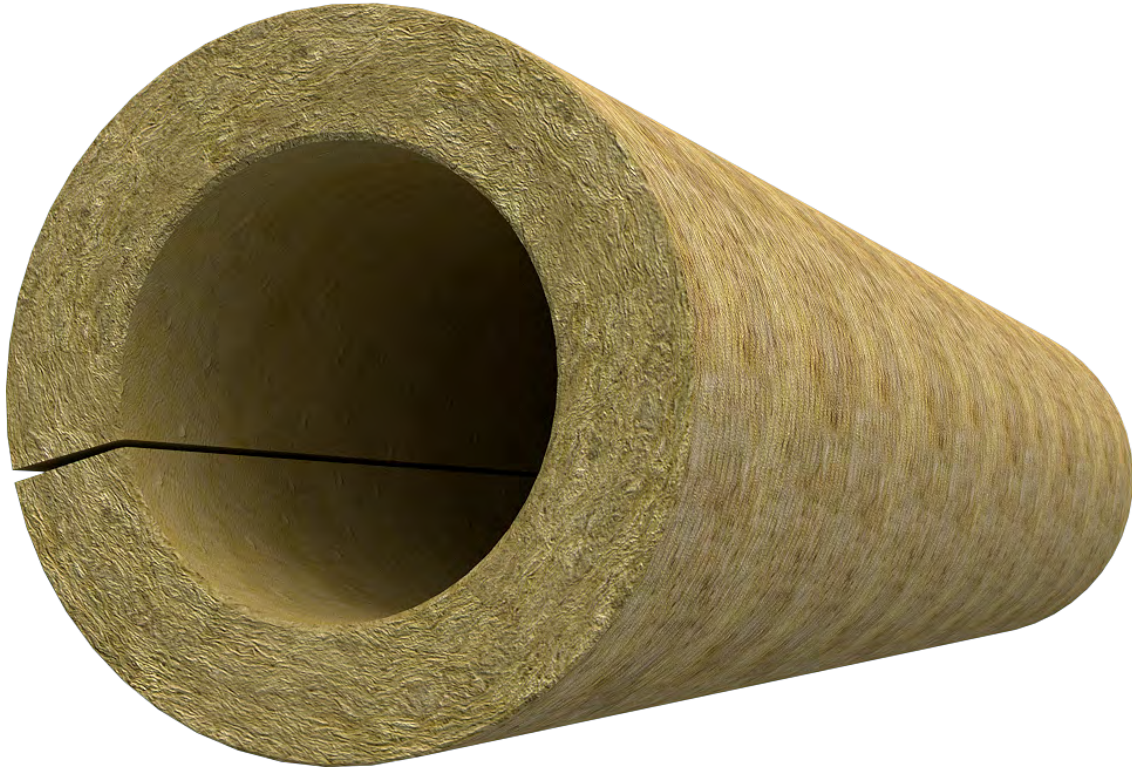
FIREPRO Fire Tube is a pre-formed cylindrical insulation manufactured using ROCKWOOL stone wool. The product is available with an optional aluminium foil facing.

Fire Tube is suitable for structural steel circular columns up to 438mm in diameter, and is supplied in metre lengths.

For standard wall thicknesses and size availability, please see the current ROCKWOOL price list.



# FIREPRO® Fire Tube



## APPLICATIONS

Fire Tube has been tested to fire protect structural steel circular hollow columns.

It may be possible to use this test data in assessing the performance of Fire Tube when applied to other circular elements, such as pipework - however such assessments should be undertaken by a suitably qualified individual.

Please contact the ROCKWOOL Fire Team for further information.

# FIREPRO® Fire Tube

## PERFORMANCE

### Fire performance

Fire Tube has been designed to fire protect structural steel circular hollow columns in the range of 350°C to 750°C for fire resistance periods of up to 3 hours.

The required wall thickness of Fire Tube to provide a particular fire resistance for a specified period depends on the diameter, wall thickness and design temperature of the steel column.

### Structural steel fire protection

The following table gives the thickness of Fire Tube required to protect standard circular hollow sections for up to 3 hours.

For sections not covered, or alternative design temperatures, please contact ROCKWOOL Technical for assistance in calculating the required thickness of Fire Tube.

O.D. (mm)	Circular hollow section				Required thickness (mm) for a given protection period											
	Wall thickness (mm)	Mass (kg/m)	Section Area (cm <sup>2</sup> )	A/V (m <sup>-1</sup> )	Design temperature 400°C						Design temperature 550°C					
					30 min	60 min	90 min	120 min	150 min	180 min	30 min	60 min	90 min	120 min	150 min	180 min
33.7	3.6	2.67	3.4	310	25	60	90	-	-	-	25	40	70	95	-	-
	4	2.93	3.73	285	25	60	90	-	-	-	25	40	70	95	-	-
42.4	3.6	3.44	4.39	305	25	60	90	-	-	-	25	40	70	95	-	-
	4	3.79	4.83	275	25	55	90	-	-	-	25	40	65	95	-	-
	5	4.61	5.87	230	25	55	85	-	-	-	25	35	65	90	-	-
48.3	3.6	3.97	5.06	300	25	60	90	-	-	-	25	40	70	95	-	-
	4	4.37	5.57	270	25	55	90	-	-	-	25	40	65	95	-	-
	5	5.34	6.8	225	25	55	85	-	-	-	25	35	65	90	-	-
60.3	3.6	5.03	6.41	295	25	60	90	-	-	-	25	40	70	95	-	-
	4	5.55	7.07	270	25	55	90	-	-	-	25	40	65	95	-	-
	5	6.82	8.69	220	25	50	85	-	-	-	25	35	60	90	-	-
76.1	3.6	6.44	8.2	290	25	60	90	-	-	-	25	40	70	95	-	-
	4	7.11	9.06	265	25	55	85	-	-	-	25	40	65	95	-	-
	5	8.77	11.2	215	25	50	80	-	-	-	25	35	60	90	-	-
	6.3	10.8	13.8	175	25	45	75	105	-	-	25	30	55	80	-	-
88.9	3.6	7.57	9.65	290	25	60	90	-	-	-	25	40	70	95	-	-
	4	8.38	10.7	260	25	55	85	-	-	-	25	40	65	95	-	-
	5	10.3	13.2	210	25	50	80	-	-	-	25	35	60	85	-	-
	6.3	12.8	16.3	170	25	45	75	105	-	-	25	30	55	80	-	-
114.3	3.6	9.83	12.5	285	25	60	90	-	-	-	25	40	70	95	-	-
	4	10.9	13.9	260	25	55	85	-	-	-	25	40	65	95	-	-
	5	13.5	17.2	210	25	50	80	-	-	-	25	35	60	85	-	-
	6.3	16.8	21.4	170	25	45	75	105	-	-	25	30	55	80	-	-
139.7	3.6	12.1	15.4	285	25	60	90	-	-	-	25	40	70	95	-	-
	4	13.4	17.1	255	25	55	85	-	-	-	25	40	65	90	-	-
	5	16.6	21.2	205	25	50	80	-	-	-	25	35	60	85	-	-
	6.3	20.7	26.4	165	25	45	75	105	-	-	25	30	55	80	105	-
	8	26	33.1	135	25	40	65	95	-	-	25	25	45	75	100	-
	10	32	40.7	110	25	30	60	85	-	-	25	25	40	65	90	-
168.3	5	20.1	25.7	205	25	50	80	-	-	-	25	35	60	85	-	-
	6.3	25.2	32.1	165	25	45	75	105	-	-	25	30	55	80	105	-
	8	31.6	40.3	130	25	35	65	95	-	-	25	25	45	70	100	-
	10	39	49.7	105	25	30	55	85	-	-	25	25	35	60	90	-
	12.5	48	61.2	85	25	25	45	70	95	-	25	25	25	50	75	100
193.7	5	23.3	29.6	205	25	50	80	-	-	-	25	35	60	85	-	-
	6.3	29.1	37.1	165	25	45	75	105	-	-	25	30	55	80	105	-
	8	36.6	46.7	130	25	35	65	95	-	-	25	25	45	70	100	-
	10	45.3	57.7	105	25	30	55	85	-	-	25	25	35	60	90	-
	12.5	55.9	71.2	85	25	25	45	70	95	-	25	25	25	50	75	100
219.1	5	26.4	33.6	205	25	50	80	-	-	-	25	35	60	85	-	-
	6.3	33.1	42.1	165	25	45	75	105	-	-	25	30	55	80	105	-
	8	41.6	53.1	130	25	35	65	95	-	-	25	25	45	70	100	-
	10	51.6	65.7	105	25	30	55	85	-	-	25	25	35	60	90	-
	12.5	63.7	81.1	85	25	25	45	70	95	-	25	25	25	50	75	100
	14.2	71.8	91.4	75	25	25	40	65	90	-	25	25	25	45	70	95
16	80.1	102	65	25	25	35	55	80	100	25	25	25	35	60	85	

Table continues on next page

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Circular hollow section					Required thickness (mm) for a given protection period											
					Design temperature 400°C						Design temperature 550°C					
O.D. (mm)	Wall thickness (mm)	Mass (kg/m)	Section Area (cm <sup>2</sup> )	A/V (m <sup>-1</sup> )	30 min	60 min	90 min	120 min	150 min	180 min	30 min	60 min	90 min	120 min	150 min	180 min
244.5	5	29.5	37.6	205	25	50	80	-	-	-	25	35	60	85	-	-
	6.3	37	47.1	165	25	45	75	105	-	-	25	30	55	80	105	-
	8	46.7	59.4	130	25	35	65	95	-	-	25	25	45	70	100	-
	10	57.8	73.7	105	25	30	55	85	-	-	25	25	35	60	90	-
	12.5	71.5	91.1	85	25	25	45	70	95	-	25	25	25	50	75	100
	14.2	80.6	103	75	25	25	40	65	90	-	25	25	25	45	70	95
	16	90.2	115	65	25	25	35	55	80	100	25	25	25	35	60	85
273	5	33	42.1	205	25	50	80	-	-	-	25	35	60	85	-	-
	6.3	41.4	52.8	160	25	45	75	100	-	-	25	25	55	80	105	-
	8	52.3	66.6	130	25	35	65	95	-	-	25	25	45	70	100	-
	10	64.9	82.6	105	25	30	55	85	-	-	25	25	35	60	90	-
	12.5	80.3	102	85	25	25	45	70	95	-	25	25	25	50	75	100
	14.2	90.6	115	75	25	25	40	65	90	-	25	25	25	45	70	95
	16	101	129	65	25	25	35	55	80	100	25	25	25	35	60	85
323.9	5	39.3	50.1	205	25	50	80	-	-	-	25	35	60	85	-	-
	6.3	49.3	62.9	160	25	45	75	100	-	-	25	25	55	80	105	-
	8	62.3	79.4	130	25	35	65	95	-	-	25	25	45	70	100	-
	10	77.4	98.6	105	25	30	55	85	-	-	25	25	35	60	90	-
	12.5	96	122	85	25	25	45	70	95	-	25	25	25	50	75	100
	14.2	108	138	75	25	25	40	65	90	-	25	25	25	45	70	95
	16	121	155	65	25	25	35	55	80	100	25	25	25	35	60	85
355.6	6.3	54.3	69.1	160	25	45	75	100	-	-	25	25	55	80	105	-
	8	68.6	87.4	130	25	35	65	95	-	-	25	25	45	70	100	-
	10	85.2	109	100	25	30	55	80	105	-	25	25	35	60	85	-
	12.5	106	135	85	25	25	45	70	95	-	25	25	25	50	75	100
	14.2	120	152	75	25	25	40	65	90	-	25	25	25	45	70	95
	16	134	171	65	25	25	35	55	80	100	25	25	25	35	60	85
	406.4	6.3	62.2	79.2	160	25	45	75	100	-	-	25	25	55	80	105
8		78.6	100	130	25	35	65	95	-	-	25	25	45	70	100	-
10		97.8	125	100	25	30	55	80	105	-	25	25	35	60	85	-
12.5		121	155	80	25	25	45	70	95	-	25	25	25	50	75	95
14.2		137	175	75	25	25	40	65	90	-	25	25	25	45	70	95
16		154	196	65	25	25	35	55	80	100	25	25	25	35	60	85

## PRODUCT INFORMATION

Property	Description
Length	1000mm
Internal diameter range	Up to 438mm
Thickness range	25 – 100mm
Fire resistance	Up to 3 hours

## STANDARDS AND APPROVALS

Fire Tube has been authorised for use in LUL surface and sub-surface premises when installed in accordance with this datasheet - please refer to the LUL Approved Product Register website [www.LU-apr.co.uk](http://www.LU-apr.co.uk) for specific details.

## INSTALLATION

FIREPRO Fire Tube is light and easy to cut to shape using a saw or a sharp knife.

All joints should be held firmly together with temporary bands of steel wire, jubilee clips or plastic cable ties at 200mm centres until the glue has fully cured.

If installed outdoors, Fire Tube must be protected from the weather. Prior to use, Fire Tube should be stored indoors or protected by a weatherproof covering

# FIREPRO® Fire Tube

## DISCLAIMERS

ROCKWOOL Limited, its affiliates, its agents and employees and all persons acting on its or their behalf (collectively "ROCKWOOL"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product. Usage of the information remains under the sole responsibility of the purchaser and/or user.

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## SUPPORTING INFORMATION

For further information relating to any aspect of the FIREPRO range, please refer to the applicable ROCKWOOL standard details at [www.rockwool.com/uk](http://www.rockwool.com/uk) or contact the ROCKWOOL technical solution team on 01656 868490 or [technical.solutions@rockwool.com](mailto:technical.solutions@rockwool.com).

## SUSTAINABILITY

As an environmentally conscious company, ROCKWOOL promotes the sustainable production and use of insulation and is committed to a continuous process of environmental improvement.

All ROCKWOOL products provide outstanding thermal protection as well as four added benefits:



## HEALTH & SAFETY

The safety of ROCKWOOL stone wool is confirmed by current UK and Republic of Ireland health & safety regulations and EU directive 97/69/EC: ROCKWOOL fibres are not classified as a possible human carcinogen.

A Material Safety Data Sheet is available and can be downloaded from [www.rockwool.com/uk](http://www.rockwool.com/uk) to assist in the preparation of risk assessments, as required by the Control of Substances Hazardous to Health Regulations (COSHH).

## ENVIRONMENT

Made from a renewable and plentiful naturally occurring resource, ROCKWOOL insulation saves fuel costs and energy in use and relies on trapped air for its thermal properties.

ROCKWOOL insulation does not contain (and has never contained) gases that have ozone depletion potential (ODP) or global warming potential (GWP).

ROCKWOOL is approximately 97% recyclable. For waste ROCKWOOL material that may be generated during installation or at end of life, we are happy to discuss the individual requirements of contractors and users considering returning these materials to our factory for recycling.