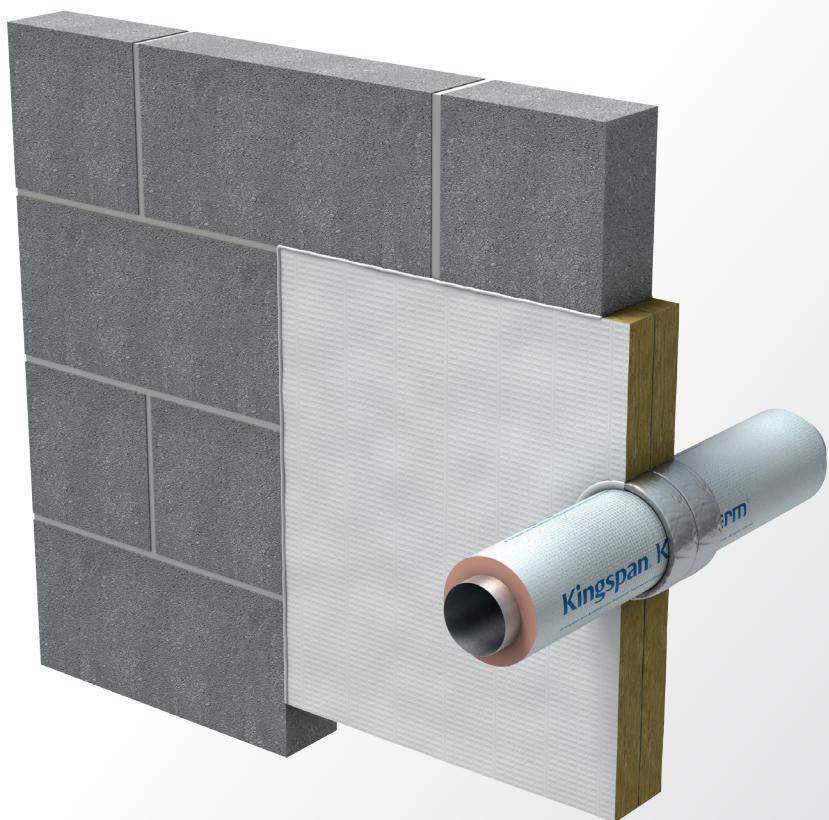


Technical Insulation

Passive Fire Protection
Great Britain & Ireland

Kooltherm® Pipe Insulation and K-Stop® Fire Stopping Solutions

Installation Guide



Contents

	Page
Walls	4
Reference Table	4 - 5
Drywalls or Rigid Walls	6 - 9
Drywalls, Masonry or Concrete Walls	10 - 12
Timber Walls	13 - 15
Floors	16
Reference Table	16 - 17
Rigid Floors	18 - 23
Timber Floors	24

Kooltherm® Pipe Insulation and K-Stop® Fire Stopping Solutions

Summary

Kingspan Kooltherm® Pipe Insulation can be used in various wall and floor applications as a fire stopping solution when installed in conjunction with Kingspan K-Stop® passive fire protection products.

This brochure provides an overview of the applications where a Kooltherm® Pipe Insulation and K-Stop® product solution is available. For further detailed information please contact the technical services team on technical.pfp@kingspan.com.

Walls

Substrate material and thickness	Pipe details	Kooltherm® insulation thickness	K-Stop® product solution	Fire resistance rating achieved	Figure reference
≥ 75 mm Drywalls or Rigid Walls	Steel pipes ≤ Ø 273 mm	25 – 100 mm	Kingspan K-Stop® Coated Batt and Kingspan K-Stop® Pipe Wrap	EI 60 C/U (E 60)	W1
≥ 100 mm Drywalls or Rigid Walls	Steel pipes ≤ Ø 16 mm	15 mm	Kingspan K-Stop® Coated Batt and Kingspan K-Stop® Pipe Wrap	EI 90 C/U (E 90)	W2
≥ 100 mm Drywalls or Rigid Walls	Steel pipes ≤ Ø 273 mm	25 – 100 mm	Kingspan K-Stop® Coated Batt and Kingspan K-Stop® Pipe Wrap	EI 90 C/U (E 90)	W3
≥ 100 mm Drywalls or Rigid Walls	Steel pipes ≤ Ø 273 mm	25 – 100 mm	Kingspan K-Stop® Coated Batt (Pattress detail) and Kingspan K-Stop® Pipe Wrap	EI 90 C/U (E 90)	W4
≥ 75 mm Drywalls or Rigid Walls	Copper pipes ≤ Ø 159 mm	15 – 100 mm	Kingspan K-Stop® Coated Batt and Kingspan K-Stop® Pipe Wrap	EI 30 C/C (E 60)	W5
≥ 100 mm Drywalls or Rigid Walls	Copper pipes ≤ Ø 15 mm	15 mm	Kingspan K-Stop® Coated Batt and Kingspan K-Stop® Pipe Wrap	EI 90 C/C (E 120)	W6
≥ 100 mm Drywalls or Rigid Walls	Copper pipes ≤ Ø 159 mm	15 mm	Kingspan K-Stop® Coated Batt and Kingspan K-Stop® Pipe Wrap	EI 30 C/C (E 120)	W7
≥ 100 mm Drywalls or Rigid Walls	Copper pipes ≤ Ø 159 mm	16 – 99 mm	Kingspan K-Stop® Coated Batt and Kingspan K-Stop® Pipe Wrap	EI 30 C/C (E 60)	W8
≥ 100 mm Drywalls or Rigid Walls	Copper pipes ≤ Ø 159 mm	100 mm	Kingspan K-Stop® Coated Batt and Kingspan K-Stop® Pipe Wrap	EI 60 C/C (E 60)	W9
≥ 100 mm Drywalls or Rigid Walls	Copper pipes ≤ Ø 159 mm	100 mm	Kingspan K-Stop® Coated Batt (Pattress detail) and Kingspan K-Stop® Pipe Wrap	EI 60 C/C (E 60)	W10
≥ 75 mm Drywalls or Rigid Walls	Metal pipes with no minimum distance in-between	Various (See detail)	Kingspan K-Stop® Coated Batt and Kingspan K-Stop® Pressure Exerting Graphite Mastic	EI 60	W11
≥ 100 mm Drywalls or Rigid Walls	Metal pipes with no minimum distance in-between	Various (See detail)	Kingspan K-Stop® Coated Batt and Kingspan K-Stop® Pressure Exerting Graphite Mastic	EI 60-120	W12
≥ 100 mm Drywalls or Rigid Walls	Metal pipes with no minimum distance in-between	Various (See detail)	Kingspan K-Stop® Coated Batt (Pattress detail) and Kingspan K-Stop® Pressure Exerting Graphite Mastic	EI 60-120	W13
≥ 100 mm Drywalls, Masonry or Concrete Walls	Steel pipes ≤ Ø 16 mm	15 mm	Kingspan K-Stop® Intumescent Mastic Plus	EI 90 C/U (E 90)	W14
≥ 100 mm Drywalls, Masonry or Concrete Walls	Steel pipes ≤ Ø 273 mm	25 mm	Kingspan K-Stop® Intumescent Mastic Plus	EI 60 C/U (E 90)	W15
≥ 100 mm Drywalls, Masonry or Concrete Walls	Steel pipes ≤ Ø 273 mm	26 – 100 mm	Kingspan K-Stop® Intumescent Mastic Plus	EI 60 C/U (E 60)	W16
≥ 100 mm Drywalls, Masonry or Concrete Walls	Copper pipes ≤ Ø 54 mm	15 mm	Kingspan K-Stop® Intumescent Mastic Plus	EI 60 C/C (E 120)	W17
≥ 100 mm Drywalls, Masonry or Concrete Walls	Copper pipes ≤ Ø 54 mm	16 – 30 mm	Kingspan K-Stop® Intumescent Mastic Plus	EI 60 C/C (E 90)	W18
≥ 100 mm Drywalls, Masonry or Concrete Walls	Copper pipes ≤ Ø 159 mm	15 – 100 mm	Kingspan K-Stop® Intumescent Mastic Plus	EI 30 C/C (E 45)	W19
≥ 100 mm Drywalls, Masonry or Concrete Walls	Copper pipes ≤ Ø 159 mm	100 mm	Kingspan K-Stop® Intumescent Mastic Plus and Kingspan K-Stop® Pipe Wrap	EI 60 C/C (E 60)	W20

Table 1: Reference table for Kooltherm® Pipe Insulation and K-Stop® passive fire protection products in walls.

Walls

Substrate material and thickness	Pipe details	Kooltherm® insulation thickness	K-Stop® product solution	Fire resistance rating achieved	Figure reference
≥ 100 mm Drywalls, Masonry or Concrete Walls	Copper or steel pipes ≤ Ø 12 mm	15 mm	Kingspan K-Stop® Pipe Collar	EI 120 C/C (E 120)	W21
≥ 100 mm Drywalls, Masonry or Concrete Walls	Copper or steel pipes ≤ Ø 108 mm	25 mm	Kingspan K-Stop® Pipe Collar	EI 90 C/C (E 120)	W22
≥ 100 mm Drywalls, Masonry or Concrete Walls	Copper or steel pipes ≤ Ø 108 mm	26 – 100 mm	Kingspan K-Stop® Pipe Collar	EI 60 C/C (E 60)	W23
≥ 100 mm Drywalls, Masonry or Concrete Walls	Copper or steel pipes ≤ Ø 108 mm	26 – 100 mm	Kingspan K-Stop® Intumescent Mastic Plus and Kingspan K-Stop® Pipe Collar	EI 60 C/C (E 60)	W24
≥ 100 mm Drywalls, Masonry or Concrete Walls	Copper or steel pipes ≤ Ø 159 mm	25 mm	Kingspan K-Stop® Pipe Collar	EI 60 C/C (E 60)	W25
≥ 100 mm Drywalls, Masonry or Concrete Walls	Copper or steel pipes ≤ Ø 159 mm	25 mm	Kingspan K-Stop® Intumescent Mastic Plus and Kingspan K-Stop® Pipe Collar	EI 60 C/C (E 60)	W26
≥ 100 mm Drywalls, Masonry or Concrete Walls	Copper or steel pipes ≤ Ø 159 mm	26 – 100 mm	Kingspan K-Stop® Pipe Collar	EI 45 C/C (E 45)	W27
≥ 100 mm Drywalls, Masonry or Concrete Walls	Copper or steel pipes ≤ Ø 159 mm	26 – 100 mm	Kingspan K-Stop® Intumescent Mastic Plus and Kingspan K-Stop® Pipe Collar	EI 45 C/C (E 45)	W28
≥ 100 mm Timber Wall	Steel pipes ≤ Ø 16 mm	15 mm	Kingspan K-Stop® Coated Batt (Pattress detail) and Kingspan K-Stop® Pipe Wrap	EI 90 C/U (E 90)	W29
≥ 100 mm Timber Wall	Steel pipes ≤ Ø 273 mm	25 – 100 mm	Kingspan K-Stop® Coated Batt (Pattress detail) and Kingspan K-Stop® Pipe Wrap	EI 90 C/U (E 90)	W30
≥ 100 mm Timber Wall	Copper pipes ≤ Ø 15 mm	15 mm	Kingspan K-Stop® Coated Batt (Pattress detail) and Kingspan K-Stop® Pipe Wrap	EI 90 C/C (E 120)	W31
≥ 100 mm Timber Wall	Copper pipes ≤ Ø 159 mm	15 mm	Kingspan K-Stop® Coated Batt (Pattress detail) and Kingspan K-Stop® Pipe Wrap	EI 30 C/C (E 120)	W32
≥ 100 mm Timber Wall	Copper pipes ≤ Ø 159 mm	16 - 99 mm	Kingspan K-Stop® Coated Batt (Pattress detail) and Kingspan K-Stop® Pipe Wrap	EI 30 C/C (E 60)	W33
≥ 100 mm Timber Wall	Copper pipes ≤ Ø 159 mm	100 mm	Kingspan K-Stop® Coated Batt (Pattress detail) and Kingspan K-Stop® Pipe Wrap	EI 60 C/C (E 60)	W34
≥ 100 mm Timber Wall	Metal pipes with no minimum distance in-between	Various (See detail)	Kingspan K-Stop® Coated Batt and Kingspan K-Stop® Pressure Exerting Graphite Mastic	EI 60-120	W35
≥ 100 mm Timber Wall	Copper or steel pipes ≤ Ø 12 mm	15 mm	Kingspan K-Stop® Intumescent Mastic Plus and Kingspan K-Stop® Pipe Collar and stone wool backing	EI 90 C/C (E 90)	W36
≥ 100 mm Timber Wall	Copper or steel pipes ≤ Ø 108 mm	25 – 100 mm	Kingspan K-Stop® Intumescent Mastic Plus and Kingspan K-Stop® Pipe Collar and stone wool backing	EI 60 C/C (E 60)	W37
≥ 100 mm Timber Wall	Copper or steel pipes ≤ Ø 108 mm	25 mm	Kingspan K-Stop® Intumescent Mastic Plus and Kingspan K-Stop® Pipe Collar and stone wool backing	EI 90 C/C (E 90)	W38
≥ 100 mm Timber Wall	Copper or steel pipes ≤ Ø 159 mm	25 mm	Kingspan K-Stop® Intumescent Mastic Plus and Kingspan K-Stop® Pipe Collar and stone wool backing	EI 60 C/C (E 60)	W39
≥ 100 mm Timber Wall	Copper or steel pipes ≤ Ø 159 mm	26 – 100 mm	Kingspan K-Stop® Intumescent Mastic Plus and Kingspan K-Stop® Pipe Collar and stone wool backing	EI 45 C/C (E 45)	W40

Table 1: Reference table for Kooltherm® Pipe Insulation and K-Stop® passive fire protection products in walls.

Drywalls or Rigid Walls

Figure W1: Insulated Steel Pipes Fire Resistance EI 60 C/U (E 60)

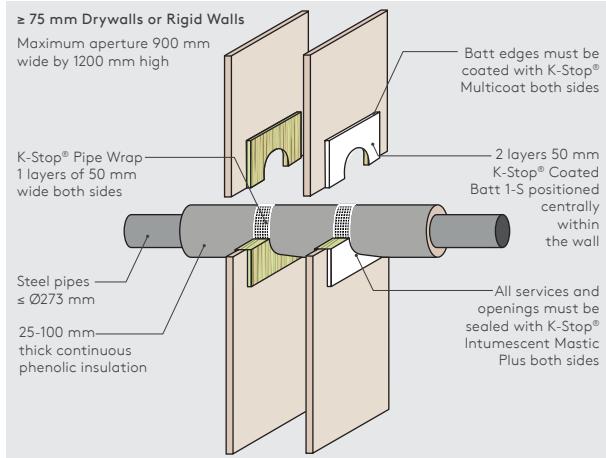


Figure W2: Insulated Steel Pipes Fire Resistance EI 90 C/U (E 90)

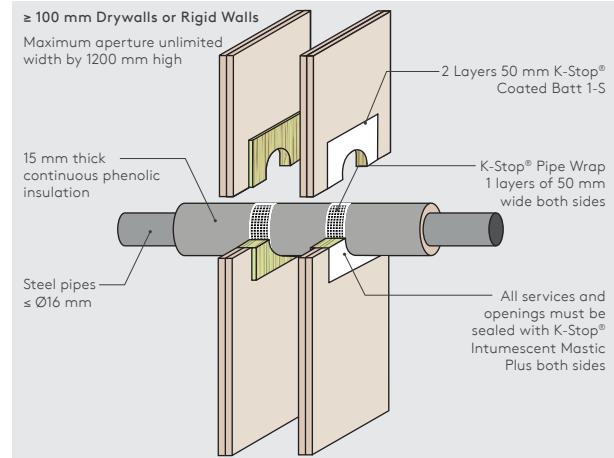


Figure W3: Insulated Steel Pipes Fire Resistance EI 90 C/U (E 90)

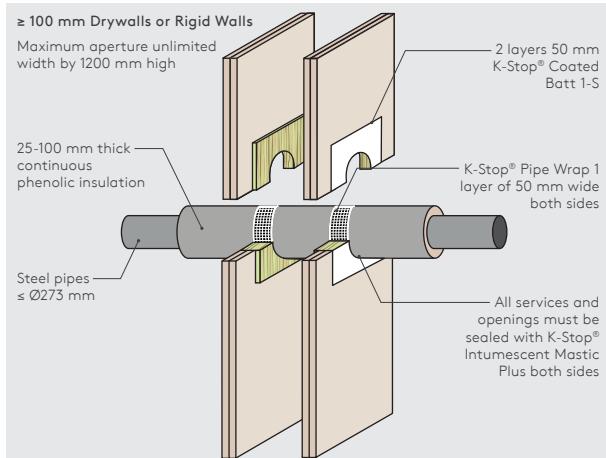


Figure W4: Insulated Steel Pipes Fire Resistance EI 90 C/U (E 90)

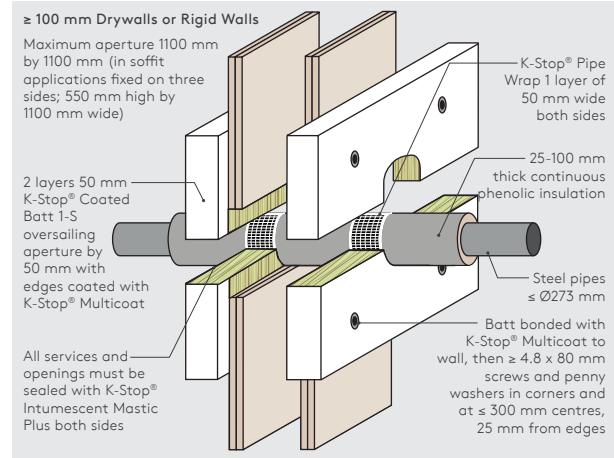


Figure W5: Insulated Copper Pipes Fire Resistance EI 30 C/C (E 60)

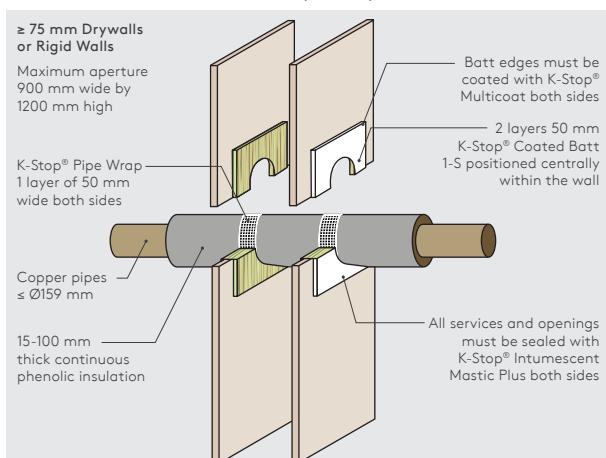
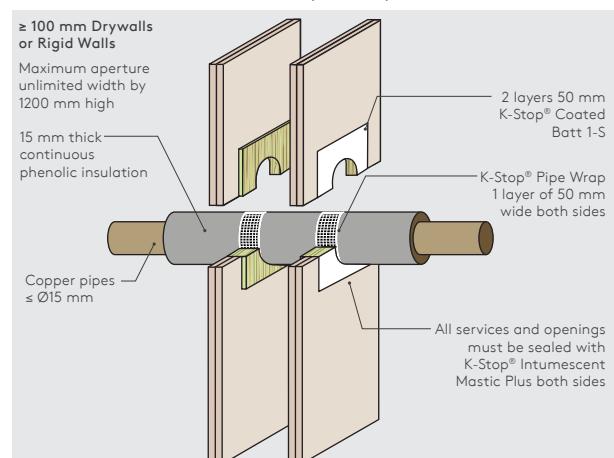


Figure W6: Insulated Copper Pipes Fire Resistance EI 90 C/C (E 120)



Drywalls or Rigid Walls

Figure W7: Insulated Copper Pipes Fire Resistance EI 30 C/C (E 120)

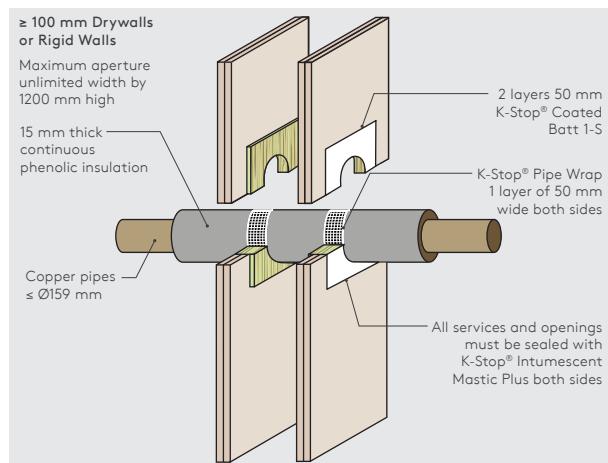


Figure W8: Insulated Copper Pipes Fire Resistance EI 30 C/C (E 60)

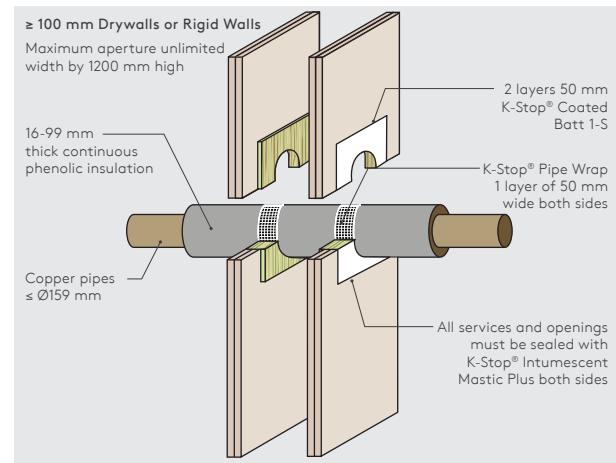


Figure W9: Insulated Copper Pipes Fire Resistance EI 60 C/C (E 60)

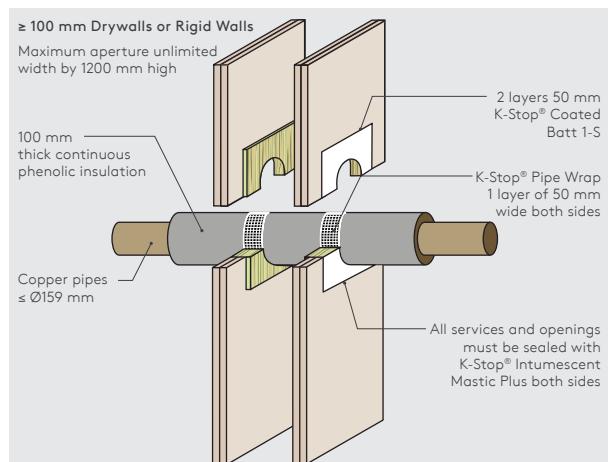
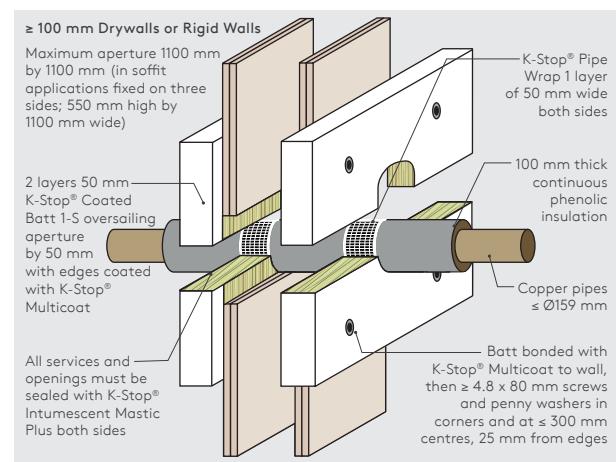


Figure W10: Insulated Copper Pipes Fire Resistance EI 60 C/C (E 60)



Drywalls or Rigid Walls

Figure W11: Insulated Metal Pipes with K-Stop® Pressure Exerting Graphite Mastic Fire Resistance EI 60

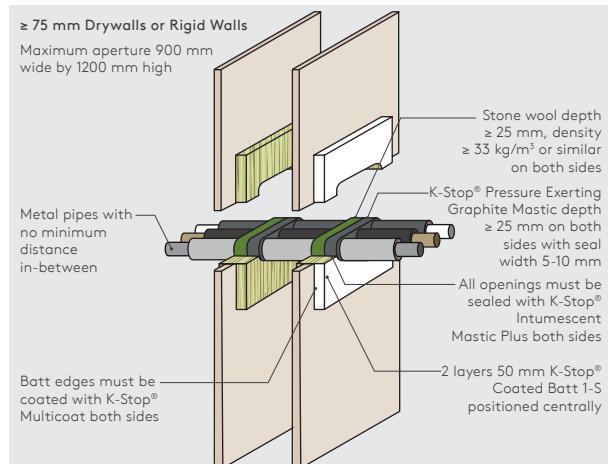
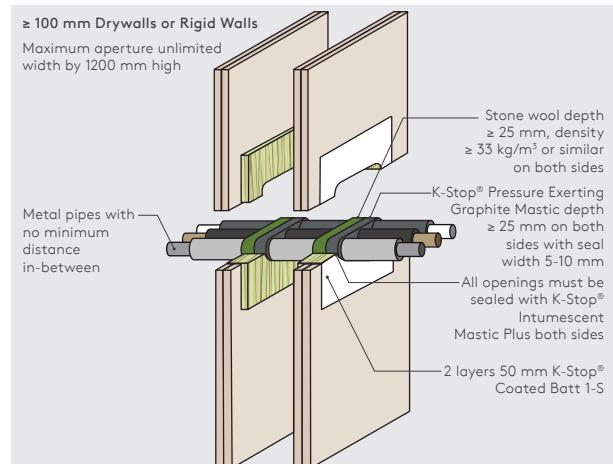


Figure W12: Insulated Metal Pipes with K-Stop® Pressure Exerting Graphite Mastic Fire Resistance EI 60-120

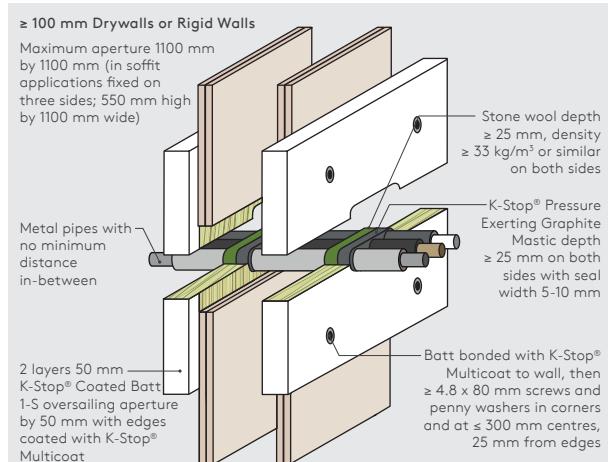


Services	Pipe Insulation	Classification
Ø6 mm Steel or Copper Pipes	9 mm elastomeric insulation class ≥ B-s3, d0	EI 60 C/C (E 60 C/C)
≤ Ø18 mm Steel or Copper Pipes	9 mm elastomeric insulation class ≥ B-s3, d0	EI 60 C/C (E 60 C/C)
≤ Ø54 mm Steel or Copper Pipes	19 mm elastomeric insulation class ≥ B-s3, d0	EI 60 C/C (E 60 C/C)
≤ Ø54 mm Steel or Copper Pipes	25 mm thick phenolic insulation	EI 60 C/C (E 60 C/C)
Ø14 mm Alupex Pipes	6 mm PE foam insulation	EI 60 C/C (E 60 C/C)

Services	Pipe Insulation	Classification
Ø6 mm Steel or Copper Pipes	9 mm elastomeric insulation class ≥ B-s3, d0	EI 120 C/C (E 120 C/C)
≤ Ø18 mm Steel or Copper Pipes	9 mm elastomeric insulation class ≥ B-s3, d0	EI 90 C/C (E 120 C/C)
≤ Ø54 mm Steel or Copper Pipes	19 mm elastomeric insulation class ≥ B-s3, d0	EI 90 C/C (E 120 C/C)
≤ Ø54 mm Steel or Copper Pipes	25 mm thick phenolic insulation	EI 60 C/C (E 120 C/C)
Ø14 mm Alupex Pipes	6 mm PE foam insulation	EI 60 C/C (E 90 C/C)

Drywalls or Rigid Walls

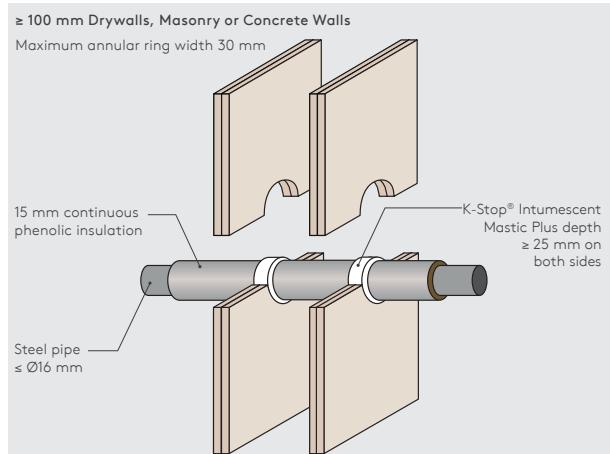
Figure W13: Insulated Metal Pipes with K-Stop® Pressure Exerting Graphite Mastic Fire Resistance EI 60-120



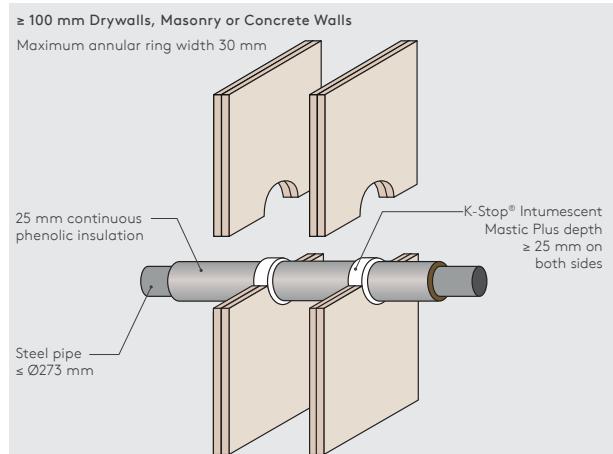
Services	Pipe Insulation	Classification
Ø6 mm Steel or Copper Pipes	9 mm elastomeric insulation class ≥ B-s3, d0	EI 120 C/C (EI 120 C/C)
≤ Ø18 mm Steel or Copper Pipes	9 mm elastomeric insulation class ≥ B-s3, d0	EI 90 C/C (EI 120 C/C)
≤ Ø54 mm Steel or Copper Pipes	19 mm elastomeric insulation class ≥ B-s3, d0	EI 90 C/C (EI 120 C/C)
≤ Ø54 mm Steel or Copper Pipes	25 mm thick phenolic insulation	EI 60 C/C (EI 120 C/C)
Ø14 mm Alupex Pipes	6 mm PE foam insulation	EI 60 C/C (EI 90 C/C)

Drywalls, Masonry or Concrete Walls

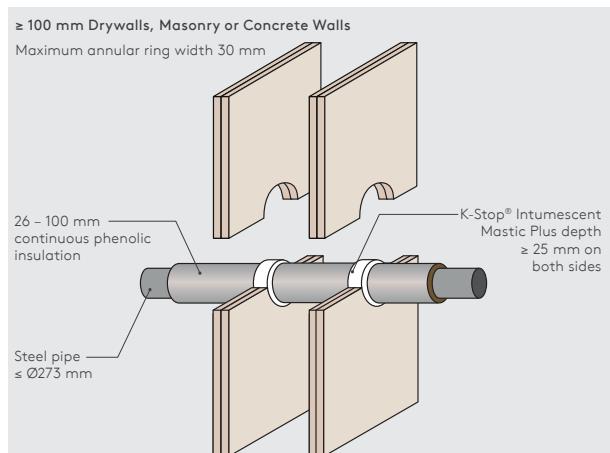
**Figure W14: Steel Pipe Fire Resistance
EI 90 C/U (E 90)**



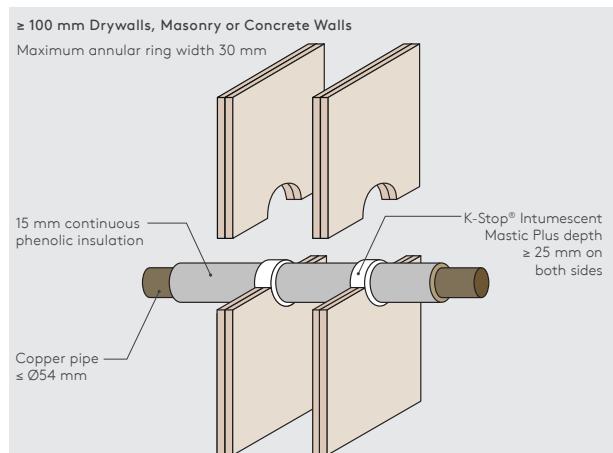
**Figure W15: Steel Pipe Fire Resistance
EI 60 C/U (E 90)**



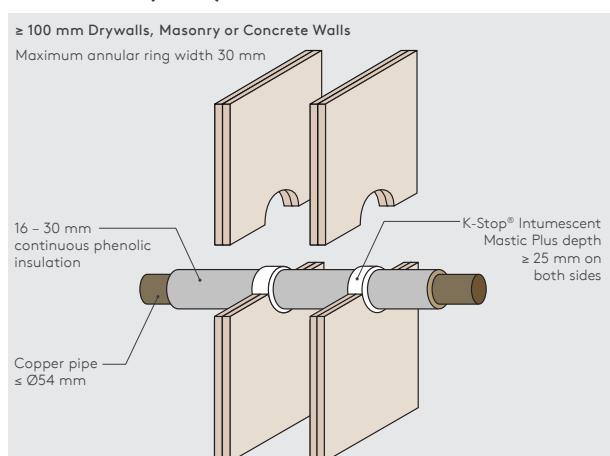
**Figure W16: Steel Pipe Fire Resistance
EI 60 C/U (E 60)**



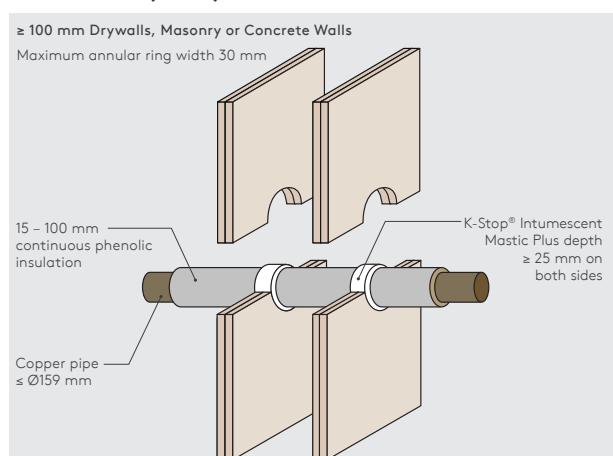
**Figure W17: Copper Pipe Fire Resistance
EI 60 C/C (E 120)**



**Figure W18: Copper Pipe Fire Resistance
EI 60 C/C (E 90)**



**Figure W19: Copper Pipe Fire Resistance
EI 30 C/C (E 45)**



Drywalls, Masonry or Concrete Walls

Figure W20: Copper Pipe Fire Resistance EI 60 C/C (E 60)

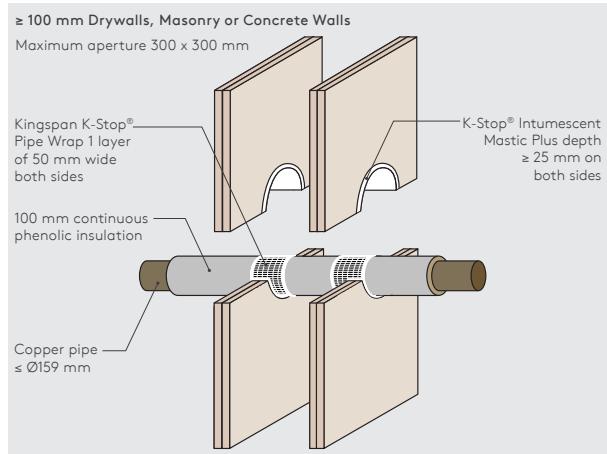


Figure W21: Copper or Steel Pipe Fire Resistance EI 120 C/C (E 120)

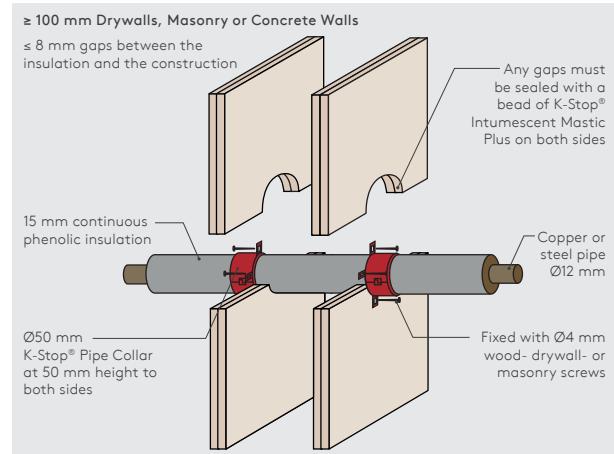


Figure W22: Copper or Steel Pipe Fire Resistance EI 90 C/C (E 120)

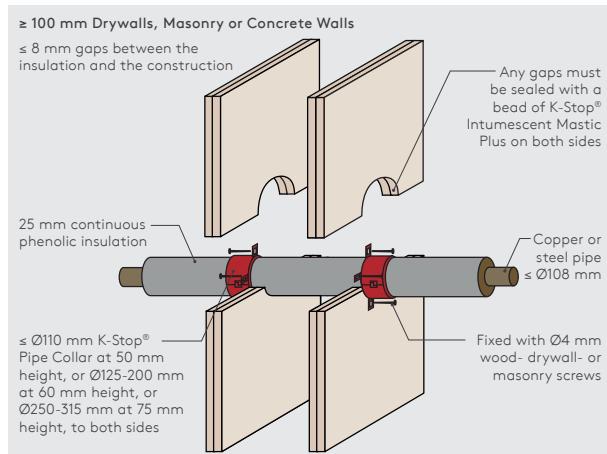


Figure W23: Copper or Steel Pipe Fire Resistance EI 60 C/C (E 60)

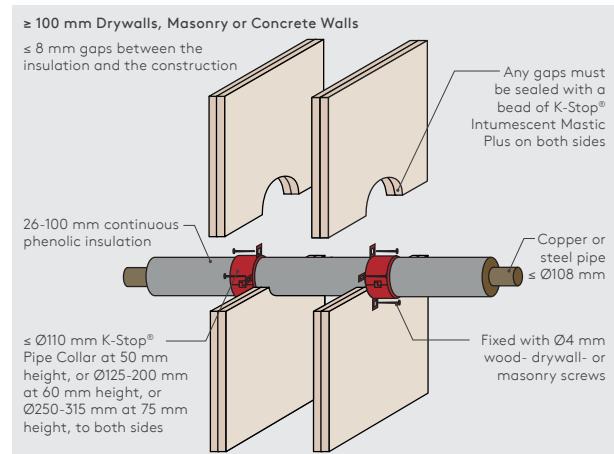


Figure W24: Copper or Steel Pipe Fire Resistance EI 60 C/C (E 60)

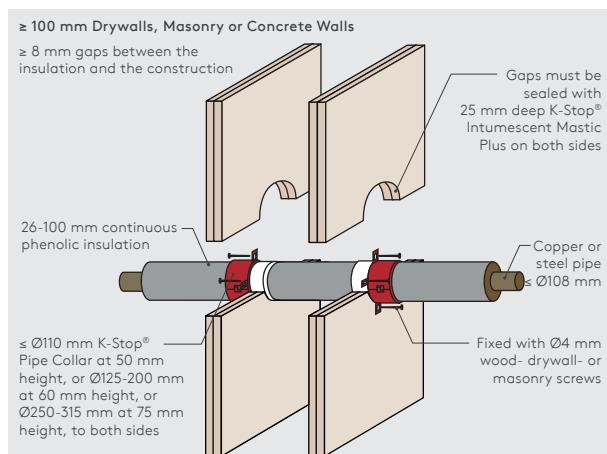
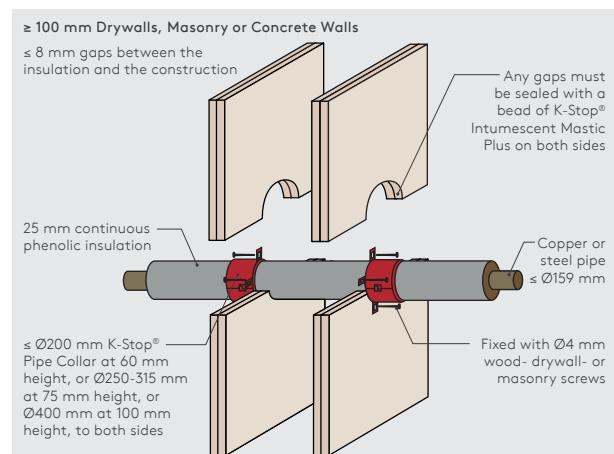


Figure W25: Copper or Steel Pipe Fire Resistance EI 60 C/C (E 60)



Drywalls, Masonry or Concrete Walls

Figure W26: Copper or Steel Pipe Fire Resistance EI 60 C/C (E 60)

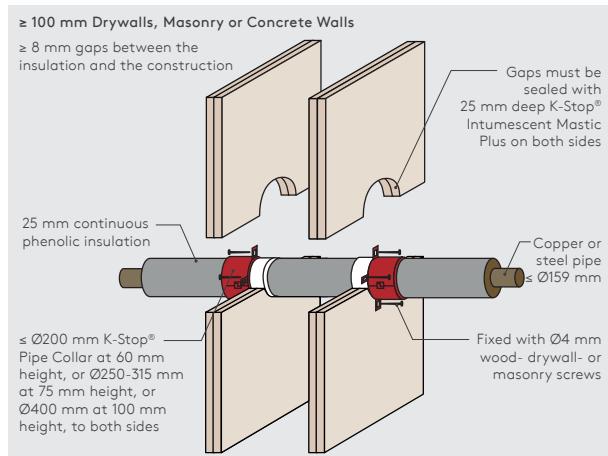


Figure W27: Copper or Steel Pipe Fire Resistance EI 45 C/C (E 45)

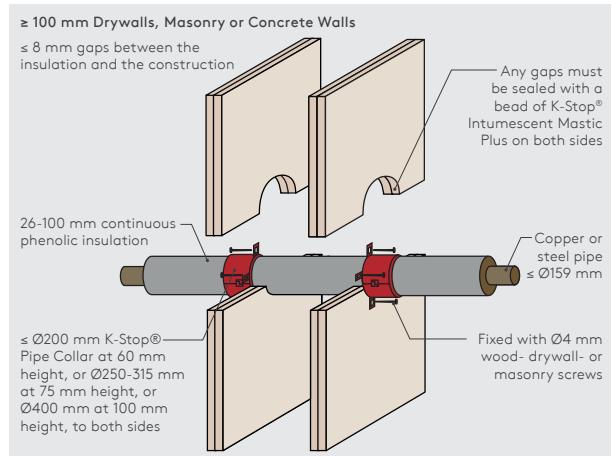
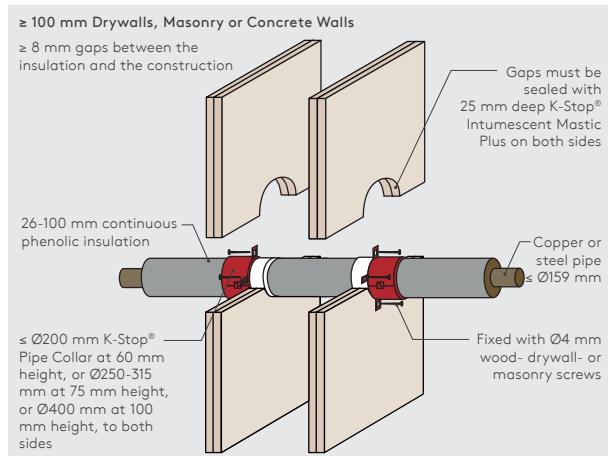


Figure W28: Copper or Steel Pipe Fire Resistance EI 45 C/C (E 45)



Timber Walls

Figure W29: Insulated Steel Pipes Fire Resistance EI 90 C/U (E 90)

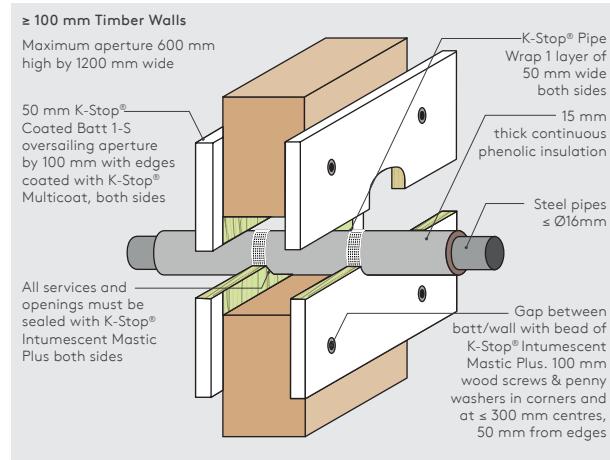


Figure W30: Insulated Steel Pipes Fire Resistance EI 90 C/U (E 90)

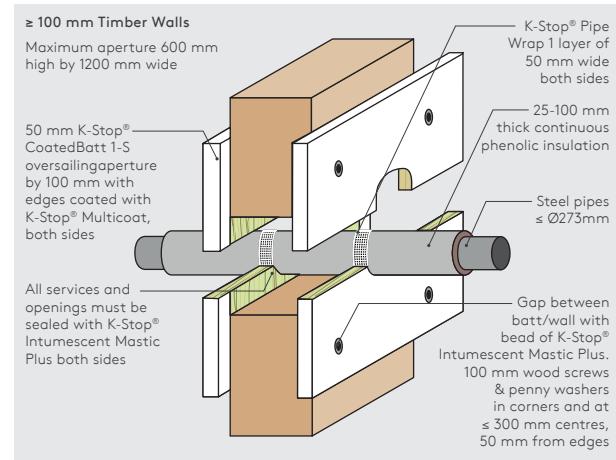


Figure W31: Insulated Copper Pipes Fire Resistance EI 90 C/C (E 120)

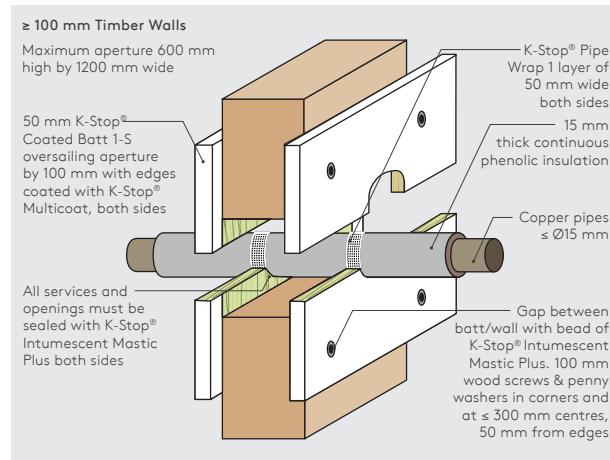


Figure W32: Insulated Copper Pipes Fire Resistance EI 30 C/C (E 120)

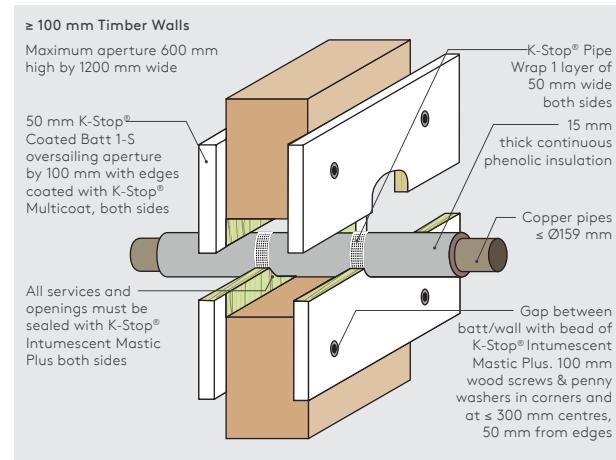


Figure W33: Insulated Copper Pipes Fire Resistance EI 30 C/C (E 60)

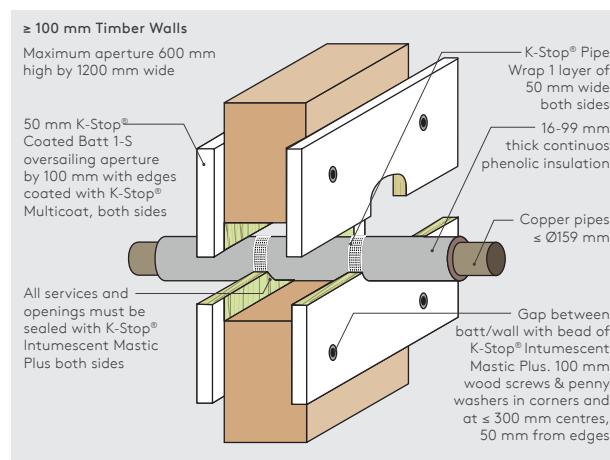
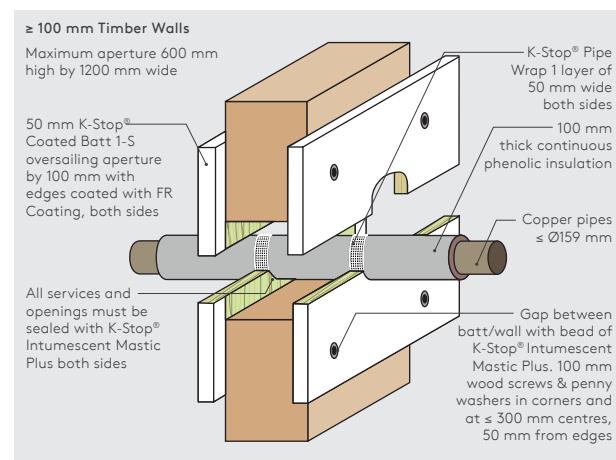
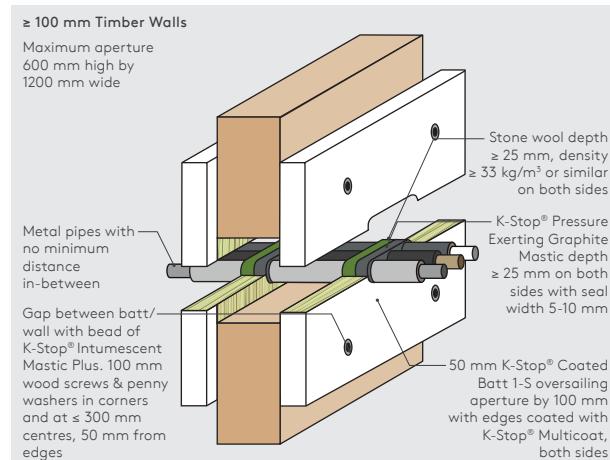


Figure W34: Insulated Copper Pipes Fire Resistance EI 60 C/C (E 60)



Timber Walls

Figure W35: Insulated Metal Pipes with K-Stop® Pressure Exerting Graphite Mastic Fire Resistance EI 60-120



Services	Pipe Insulation	Classification
≤ Ø18 mm Steel or Copper Pipes	9 mm elastomeric insulation class ≥ B-s3, d0	EI 90 C/C (E 120 C/C)
Ø6 mm Steel or Copper Pipes	9 mm elastomeric insulation class ≥ B-s3, d0	EI 120 C/C (E 120 C/C)
≤ Ø54 mm Steel or Copper Pipes	19 mm elastomeric insulation class ≥ B-s3, d0	EI 90 C/C (E 120 C/C)
≤ Ø54 mm Steel or Copper Pipes	25 mm thick phenolic insulation	EI 60 C/C (E 120 C/C)
Ø14 mm Alupex Pipes	6 mm PE foam insulation	EI 60 C/C (E 90 C/C)

Figure W36: Copper or Steel Pipe Fire Resistance EI 90 C/C (E 90)

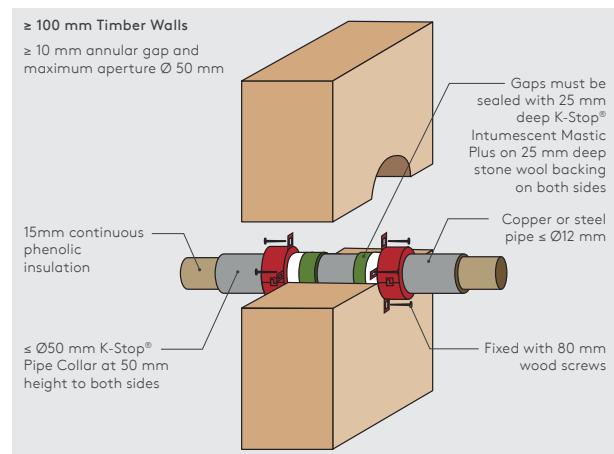
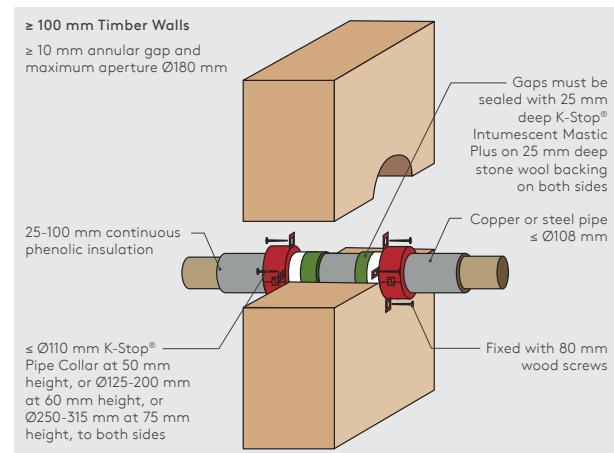


Figure W37: Copper or Steel Pipe Fire Resistance EI 60 C/C (E 60)



Timber Walls

Figure W38: Copper or Steel Pipe Fire Resistance EI 90 C/C (E 90)

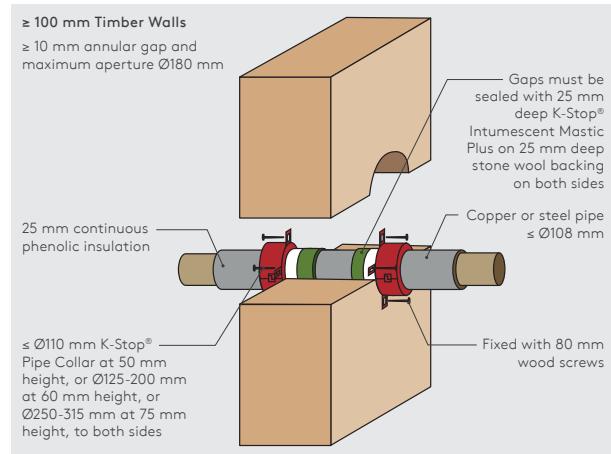


Figure W39: Copper or Steel Pipe Fire Resistance EI 60 C/C (E 60)

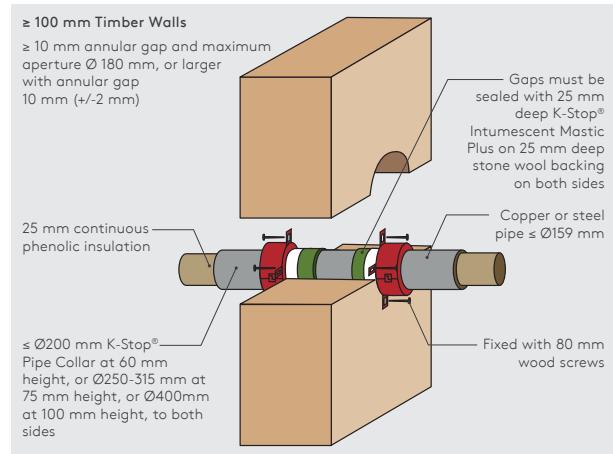
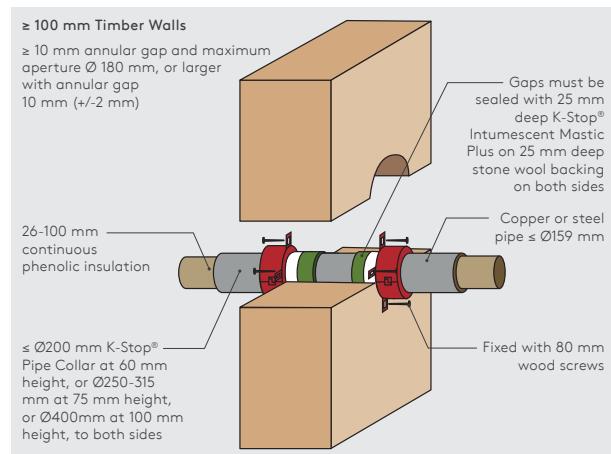


Figure W40: Copper or Steel Pipe Fire Resistance EI 45 C/C (E 45)



Floors

Substrate material and thickness	Pipe details	Kooltherm® insulation thickness	K-Stop® product solution	Fire resistance rating achieved	Figure reference
≥ 100 mm Rigid Floor	Steel pipes ≤ Ø 40 mm	13 mm	Kingspan K-Stop® Compound Fire Mortar and Kingspan K-Stop® Pipe Wrap	EI 180 C/U (E 180)	F1
≥ 100 mm Rigid Floor	Steel pipes ≤ Ø 40 mm	25 mm	Kingspan K-Stop® Compound Fire Mortar and Kingspan K-Stop® Pipe Wrap	EI 240 C/U (E 240)	F2
≥ 100 mm Rigid Floor	Steel pipes ≤ Ø 165 mm	13 - 19 mm	Kingspan K-Stop® Compound Fire Mortar and Kingspan K-Stop® Pipe Wrap	EI 120 C/U (E 180)	F3
≥ 100 mm Rigid Floor	Steel pipes ≤ Ø 324 mm	25 mm	Kingspan K-Stop® Compound Fire Mortar and Kingspan K-Stop® Pipe Wrap	EI 120 C/U (E 240)	F4
≥ 100 mm Rigid Floor	Steel pipes ≤ Ø 324 mm	26 - 50 mm	Kingspan K-Stop® Compound Fire Mortar and Kingspan K-Stop® Pipe Wrap	EI 120 C/U (E 120)	F5
≥ 100 mm Rigid Floor	Copper pipes ≤ Ø 12 mm	9 mm	Kingspan K-Stop® Compound Fire Mortar and Kingspan K-Stop® Pipe Wrap	EI 240 C/C (E 240)	F6
≥ 100 mm Rigid Floor	Copper pipes ≤ Ø 54 mm	9 - 18 mm	Kingspan K-Stop® Compound Fire Mortar and Kingspan K-Stop® Pipe Wrap	EI 60 C/C (E 180)	F7
≥ 100 mm Rigid Floor	Alupex pipes ≤ Ø 16 mm	9 mm	Kingspan K-Stop® Compound Fire Mortar and Kingspan K-Stop® Pipe Wrap	EI 240 C/C (E 240)	F8
≥ 100 mm Rigid Floor	Alupex pipes ≤ Ø 25 mm	9 - 13 mm	Kingspan K-Stop® Compound Fire Mortar and Kingspan K-Stop® Pipe Wrap	EI 180 C/C (E 240)	F9
≥ 100 mm Rigid Floor	Alupex pipes ≤ Ø 75 mm	24 mm	Kingspan K-Stop® Compound Fire Mortar and Kingspan K-Stop® Pipe Wrap	EI 90 C/C (E 180)	F10
≥ 100 mm Rigid Floor	Alupex pipes ≤ Ø 75 mm	25 mm	Kingspan K-Stop® Compound Fire Mortar and Kingspan K-Stop® Pipe Wrap	EI 180 C/C (E 180)	F11
≥ 120 mm Rigid Floor	PE, ABS and SAN+PVC pipes with wall thickness 3.0-9.5 mm, ≤ Ø 68 mm incl. insulation	9 - 50 mm	Kingspan K-Stop® Compound Fire Mortar and Kingspan K-Stop® Pipe Wrap	EI 240 C/C (E 240)	F12
≥ 120 mm Rigid Floor	PE, ABS and SAN+PVC pipes with wall thickness 3.0-9.5 mm, ≤ Ø 178 mm incl. insulation	9 - 50 mm	Kingspan K-Stop® Compound Fire Mortar and Kingspan K-Stop® Pipe Wrap	EI 240 C/C (E 240)	F13
≥ 120 mm Rigid Floor	PE, ABS and SAN+PVC pipes ≤ Ø 160 mm with wall thickness 3.0-9.5 mm, and ≤ Ø 260 mm incl. insulation	9 - 50 mm	Kingspan K-Stop® Compound Fire Mortar and Kingspan K-Stop® Pipe Wrap	EI 120 C/C (E 120)	F14
≥ 120 mm Rigid Floor	PP pipes with wall thickness 1.8-9.1 mm, ≤ Ø 68 mm incl. insulation	9 - 50 mm	Kingspan K-Stop® Compound Fire Mortar and Kingspan K-Stop® Pipe Wrap	EI 180 C/C (E 240)	F15
≥ 120 mm Rigid Floor	PP pipes with wall thickness 1.8-9.1 mm, ≤ Ø 178 mm incl. insulation	9 - 50 mm	Kingspan K-Stop® Compound Fire Mortar and Kingspan K-Stop® Pipe Wrap	EI 240 C/C (E 240)	F16
≥ 120 mm Rigid Floor	PP pipes ≤ Ø 160 mm with wall thickness 1.8-9.1 mm, and ≤ Ø 260 mm incl. insulation	9 - 50 mm	Kingspan K-Stop® Compound Fire Mortar and Kingspan K-Stop® Pipe Wrap	EI 120 C/C (E 120)	F17
≥ 150 mm Rigid Floor, Maximum annular ring width 30 mm	Steel pipes ≤ Ø 40 mm	13 - 19 mm	Kingspan K-Stop® Intumescent Mastic Plus and stone wool backing	EI 180 C/C (E 180)	F18
≥ 150 mm Rigid Floor, Maximum annular ring width 30 mm	Steel pipes ≤ Ø 165 mm	13 - 19 mm	Kingspan K-Stop® Intumescent Mastic Plus and AES Fibre backing	EI 60 C/U (E 60)	F19

Table 2 : Reference table for Kooltherm® Pipe Insulation and K-Stop® passive fire protection products in floors.

Floors

Substrate material and thickness	Pipe details	Kooltherm® insulation thickness	K-Stop® product solution	Fire resistance rating achieved	Figure reference
≥ 150 mm Rigid Floor, Maximum annular ring width 30 mm	Copper or Steel pipes ≤ Ø 12 mm	9 mm	Kingspan K-Stop® Intumescent Mastic Plus and AES Fibre backing	EI 180 C/C (E 240)	F20
≥ 150 mm Rigid Floor, Maximum annular ring width 30 mm	Copper or Steel pipes ≤ Ø 54 mm	9 – 13 mm	Kingspan K-Stop® Intumescent Mastic Plus and AES Fibre backing	EI 120 C/C (E 180)	F21
≥ 150 mm Rigid Floor, Maximum annular ring width 30 mm	Copper or Steel pipes ≤ Ø 54 mm	14 – 25 mm	Kingspan K-Stop® Intumescent Mastic Plus and AES Fibre backing	EI 60 C/C (E 90)	F22
≥ 150 mm Rigid Floor, Maximum annular ring width 30 mm	Alupex pipes ≤ Ø 16 mm	9 mm	Kingspan K-Stop® Intumescent Mastic Plus and AES Fibre backing	EI 180 C/C (E 180)	F23
≥ 150 mm Rigid Floor, Maximum annular ring width 30 mm	Alupex pipes ≤ Ø 75 mm	9 – 13 mm	Kingspan K-Stop® Intumescent Mastic Plus and AES Fibre backing	EI 60 C/C (E 120)	F24
≥ 150 mm Rigid Floor, Maximum annular ring width 30 mm	Alupex pipes ≤ Ø 75 mm	14 – 25 mm	Kingspan K-Stop® Intumescent Mastic Plus and AES Fibre backing	EI 60 C/C (E 60)	F25
≥ 150 mm Rigid Floor, ≤ 10 mm gaps between the insulation and the construction	Copper or Steel pipes ≤ Ø 54 mm	25 mm	Kingspan K-Stop® Pipe Collar with stone wool backing, single sided application	EI 45 C/C (E 120)	F26
≥ 150 mm Rigid Floor, ≥ 10 mm gaps between the insulation and the construction	Copper or Steel pipes ≤ Ø 54 mm	25 mm	Kingspan K-Stop® Pipe Collar, Kingspan K-Stop® Intumescent Mastic Plus and stone wool backing, single sided application	EI 45 C/C (E 120)	F27
≥ 150 mm Rigid Floor, ≤ 10 mm gaps between the insulation and the construction	Copper or Steel pipes ≤ Ø 158 mm	25 mm	Kingspan K-Stop® Pipe Collar with stone wool backing, double sided application	EI 45 C/C (E 120)	F26
≥ 150 mm Rigid Floor, ≥ 10 mm gaps between the insulation and the construction	Copper or Steel pipes ≤ Ø 158 mm	25 mm	Kingspan K-Stop® Pipe Collar, Kingspan K-Stop® Intumescent Mastic Plus and stone wool backing, double sided application	EI 45 C/C (E 120)	F29
≥ 150 mm Rigid Floor, ≤ 10 mm gaps between the insulation and the construction	Copper or Steel pipes ≤ Ø 159 mm	25 mm	Kingspan K-Stop® Pipe Collar with stone wool backing, double sided application	EI 60 C/C (E 120)	F30
≥ 150 mm Rigid Floor, ≥ 10 mm gaps between the insulation and the construction	Copper or Steel pipes ≤ Ø 158 mm	25 mm	Kingspan K-Stop® Pipe Collar, Kingspan K-Stop® Intumescent Mastic Plus and stone wool backing, double sided application	EI 60 C/C (E 120)	F31
≥ 150 mm Timber Floor, ≥ 10 mm annular gap and maximum aperture Ø 130 mm	Copper or Steel pipes ≤ Ø 54 mm	25 mm	Kingspan K-Stop® Pipe Collar, Kingspan K-Stop® Intumescent Mastic Plus and stone wool backing, single sided application	EI 45 C/C (E 120)	F32

Table 2 : Reference table for Kooltherm® Pipe Insulation and K-Stop® passive fire protection products in floors.

Rigid Floors

Figure F1: Insulated Steel Pipes Fire Resistance EI 180 C/U (E 180)

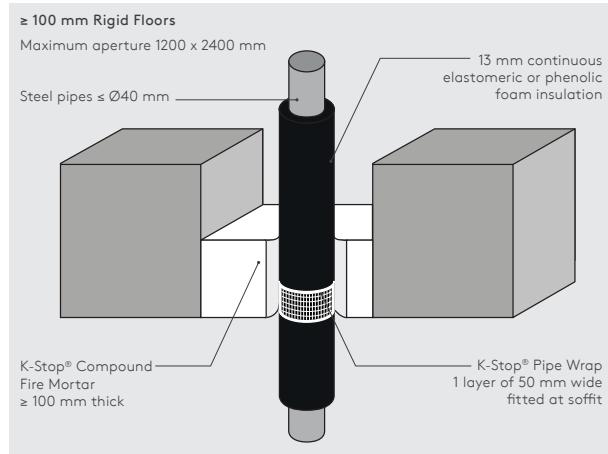


Figure F2: Insulated Steel Pipes Fire Resistance EI 240 C/U (E 240)

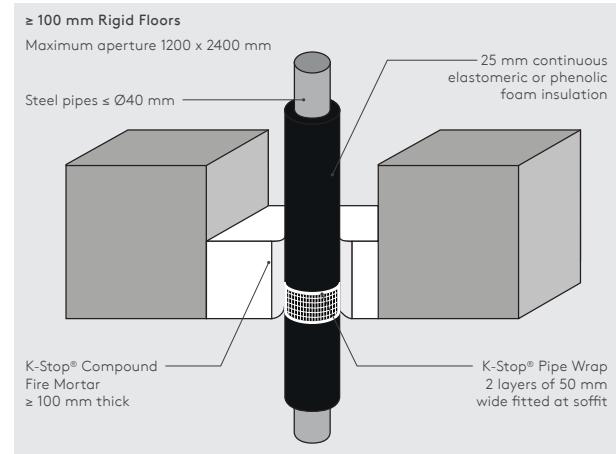


Figure F3: Insulated Steel Pipes Fire Resistance EI 120 C/U (E 180)

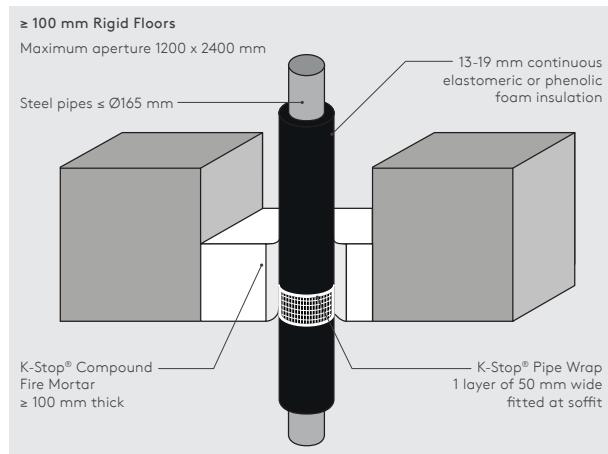


Figure F4: Insulated Steel Pipes Fire Resistance EI 120 C/U (E 240)

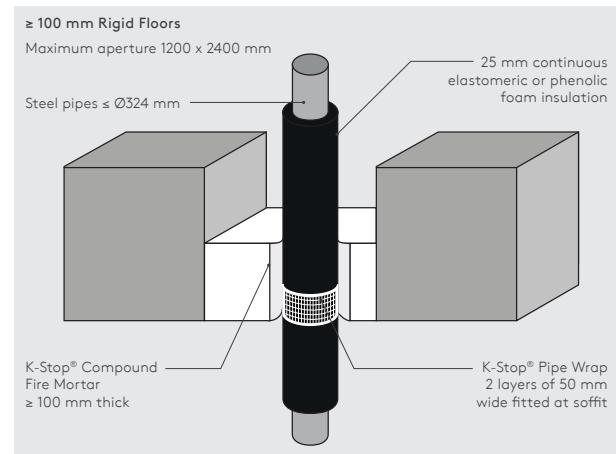


Figure F5: Insulated Steel Pipes Fire Resistance EI 120 C/U (E 120)

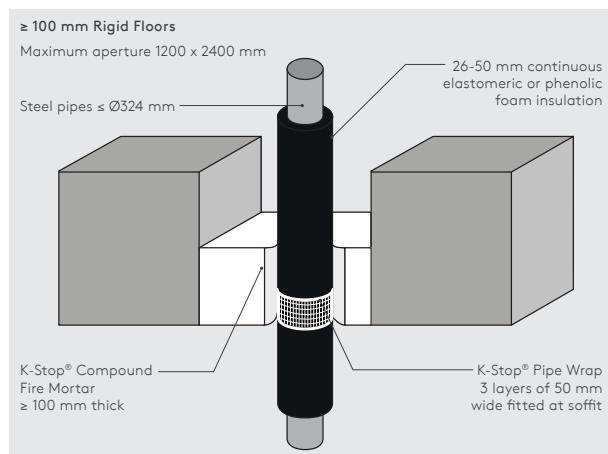
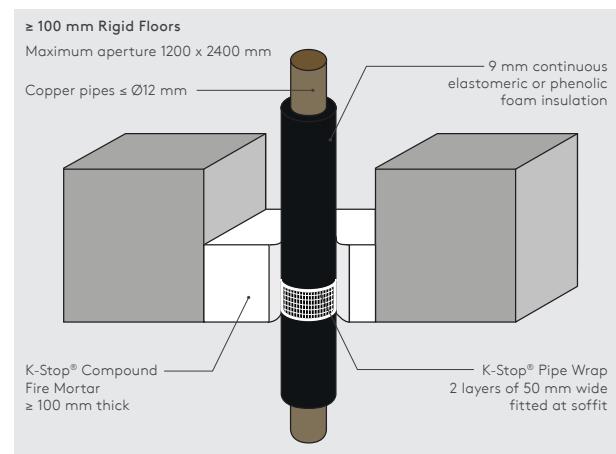


Figure F6: Insulated Copper Pipes Fire Resistance EI 240 C/C (E 240)



Rigid Floors

Figure F7: Insulated Copper Pipes Fire Resistance EI 60 C/C (E 180)

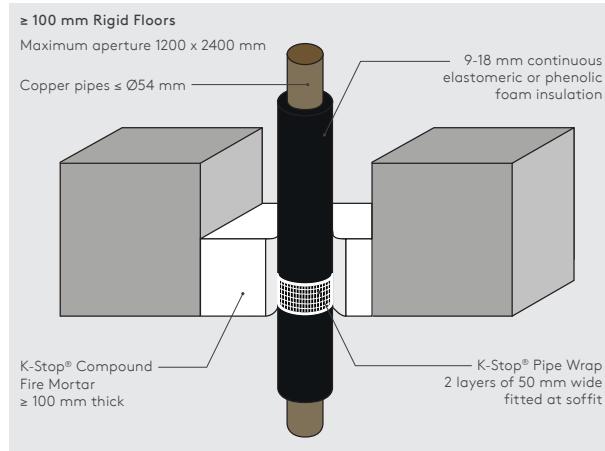


Figure F8: Insulated Alupex Pipes Fire Resistance EI 240 C/C (E 240)

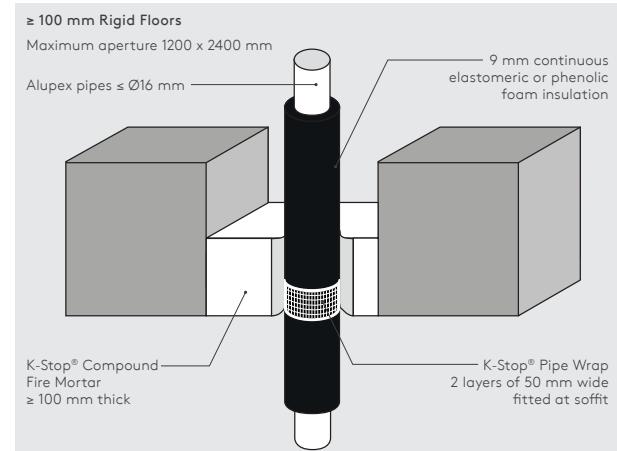


Figure F9: Insulated Alupex Pipes Fire Resistance EI 180 C/C (E 240)

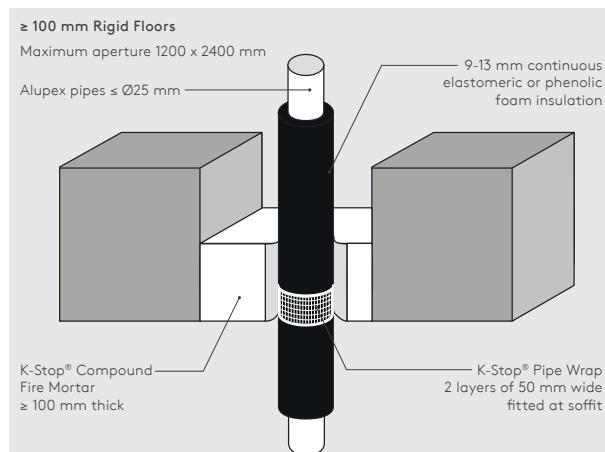


Figure F10: Insulated Alupex Pipes Fire Resistance EI 90 C/C (E 180)

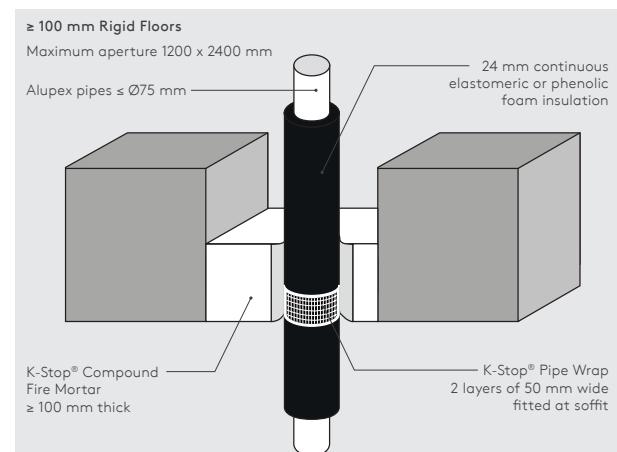


Figure F11: Insulated Alupex Pipes Fire Resistance EI 180 C/C (E 180)

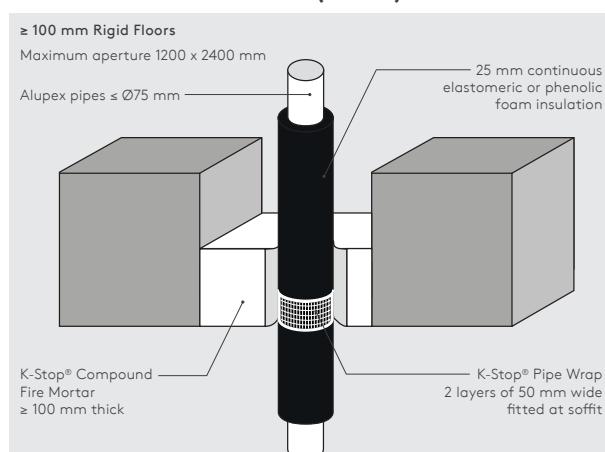
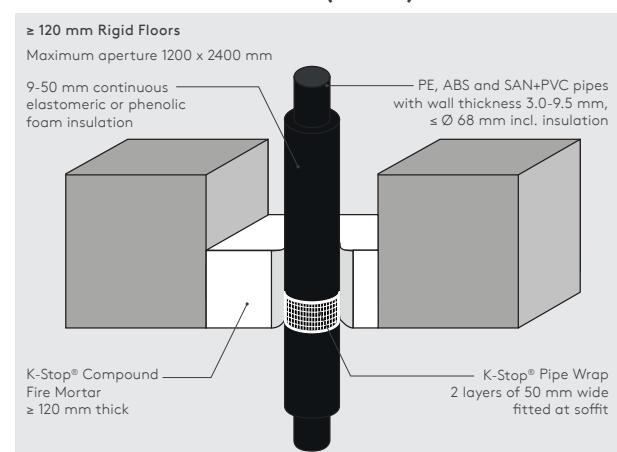


Figure F12: Insulated PE Pipes Fire Resistance EI 240 C/C (E 240)



Rigid Floors

Figure F13: Insulated PE Pipes Fire Resistance EI 240 C/C (E 240)

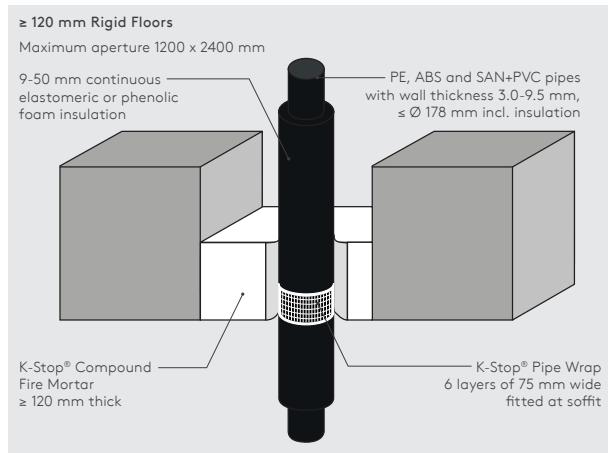


Figure F14: Insulated PE Pipes Fire Resistance EI 120 C/C (E 120)

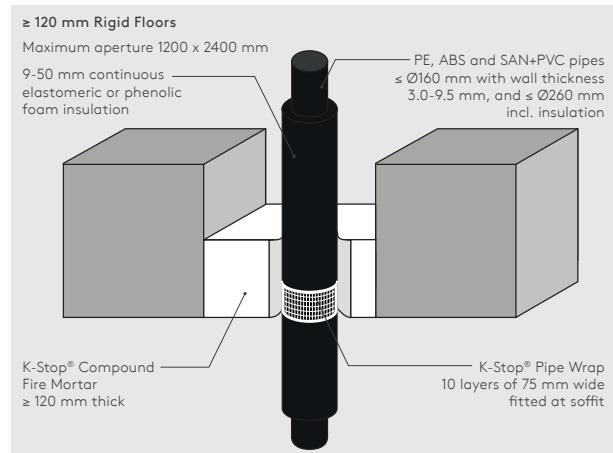


Figure F15: Insulated PP Pipes Fire Resistance EI 180 C/C (E 240)

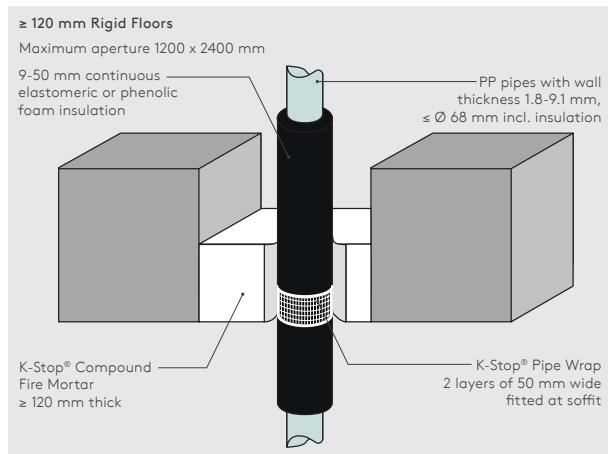


Figure F16: Insulated PP Pipes Fire Resistance EI 240 C/C (E 240)

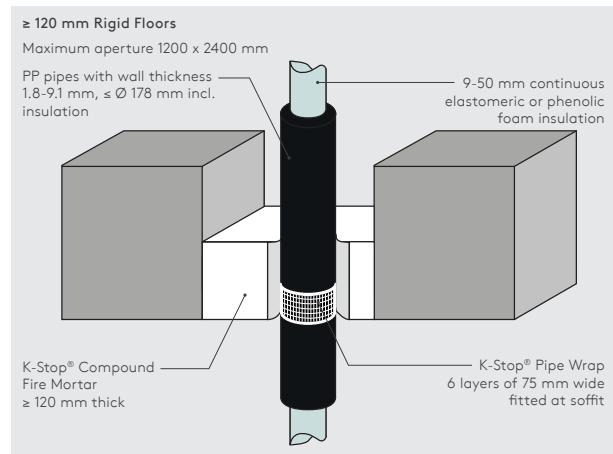


Figure F17: Insulated PP Pipes Fire Resistance EI 120 C/C (E 120)

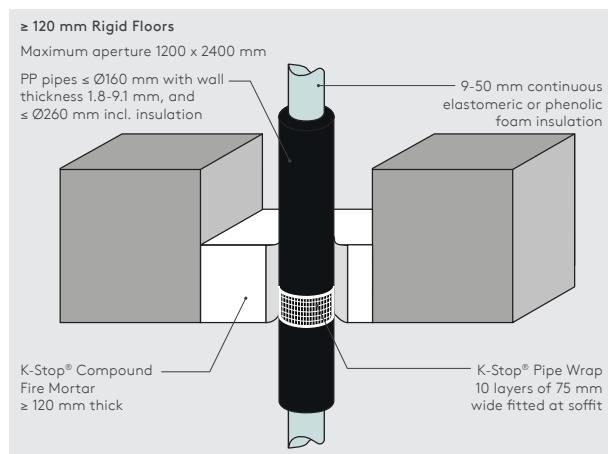
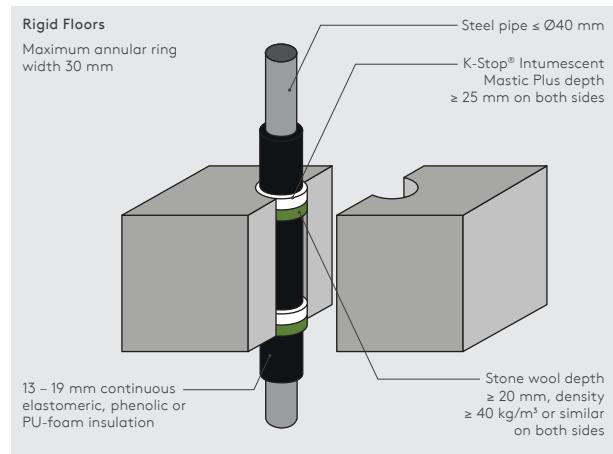


Figure F18: Insulated Steel Pipe Fire Resistance EI 180 C/U (E 180)



Rigid Floors

Figure F19: Insulated Steel Pipe Fire Resistance EI 60 C/U (E 60)

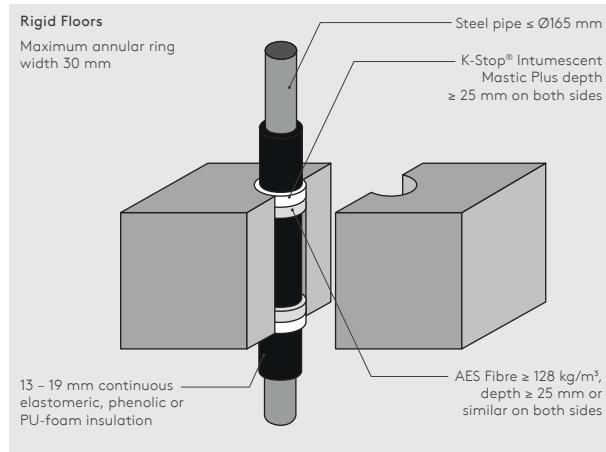


Figure F20: Copper or Steel Pipe Fire Resistance EI 180 C/C (E 240)

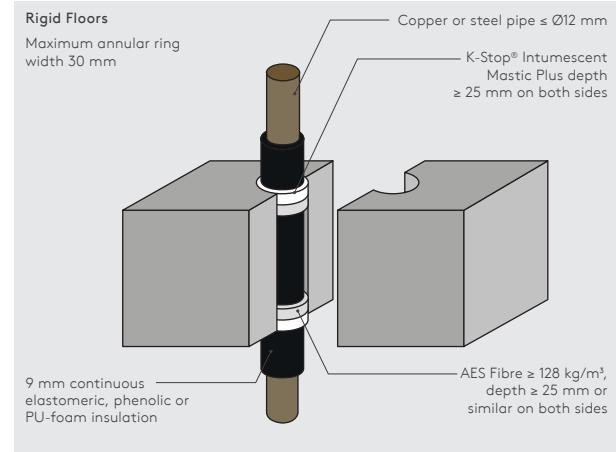


Figure F21: Copper or Steel Pipe Fire Resistance EI 120 C/C (E 180)

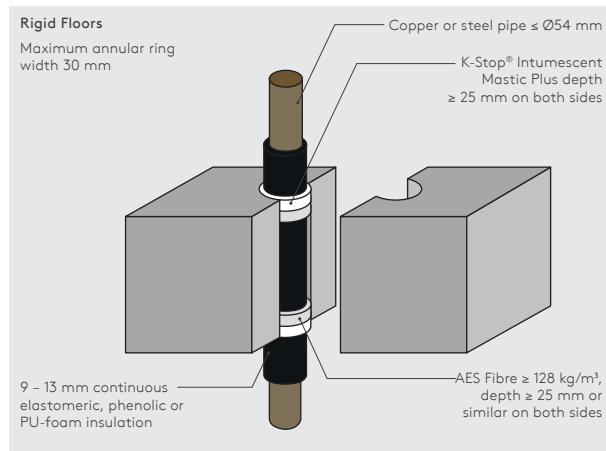


Figure F22: Copper or Steel Pipe Fire Resistance EI 60 C/C (E 90)

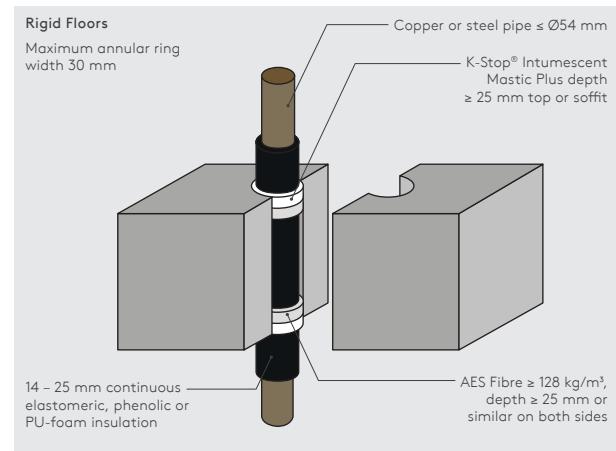


Figure F23: Insulated Alupex Pipe Fire Resistance EI 180 C/C (E 180)

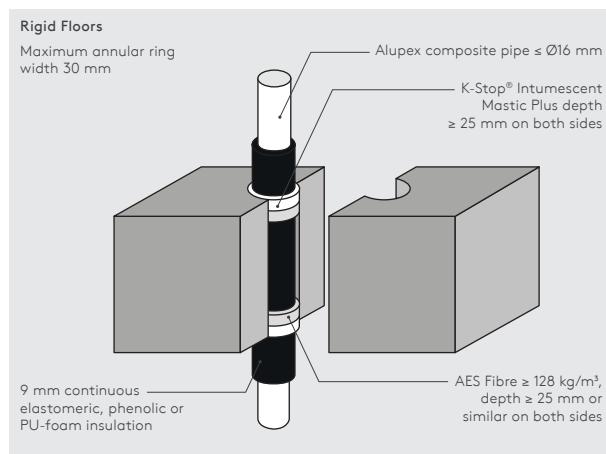
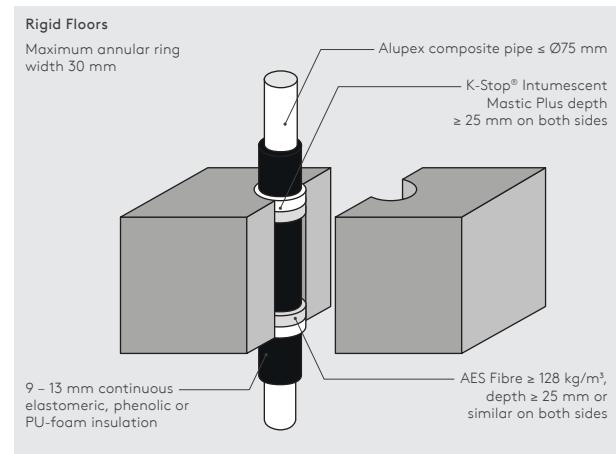


Figure F24: Insulated Alupex Pipe Fire Resistance EI 60 C/C (E 120)



Rigid Floors

Figure F25: Insulated Alupex Pipe Fire Resistance EI 60 C/C (E 60)

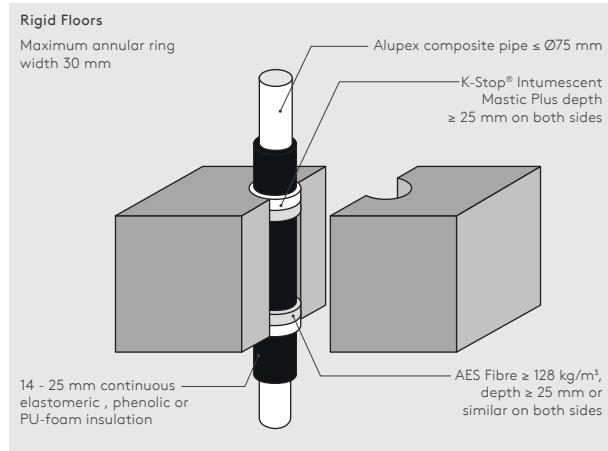


Figure F26: Copper or Steel Pipe Fire Resistance EI 45 C/C (E 120)

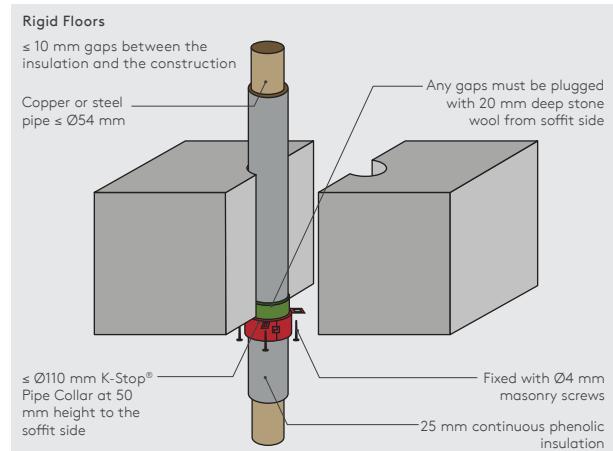


Figure F27: Copper or Steel Pipe Fire Resistance EI 45 C/C (E 120)

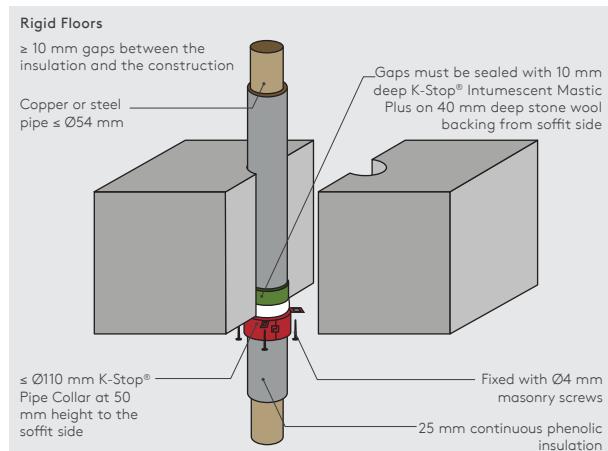


Figure F28: Copper or Steel Pipe Fire Resistance EI 45 C/C (E 120)

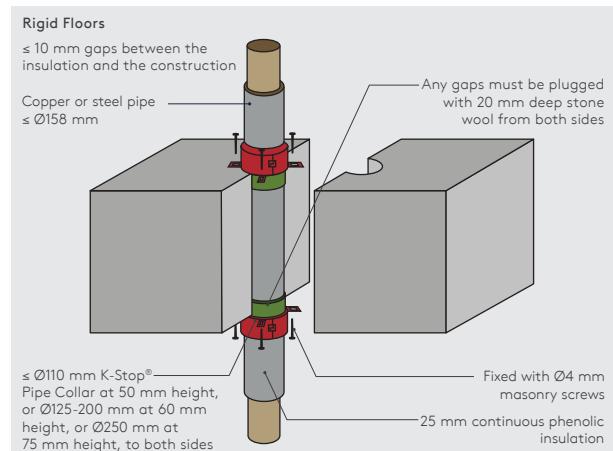


Figure 29: Copper or Steel Pipe Fire Resistance EI 45 C/C (E 120)

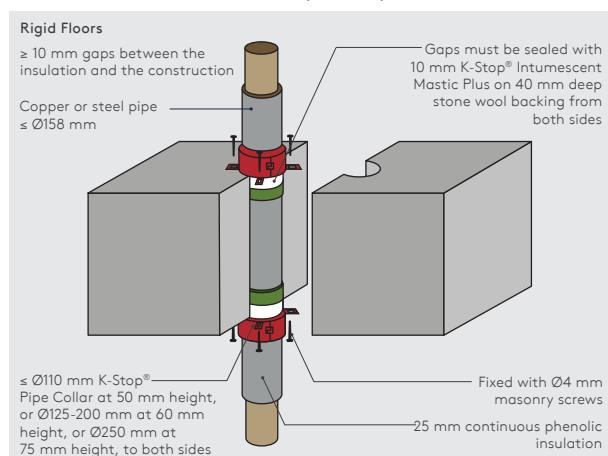
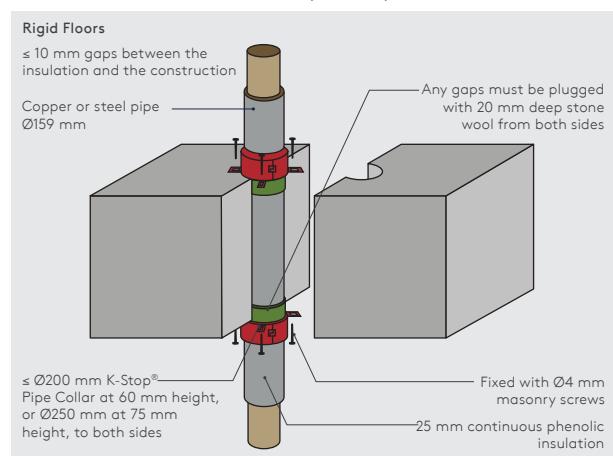
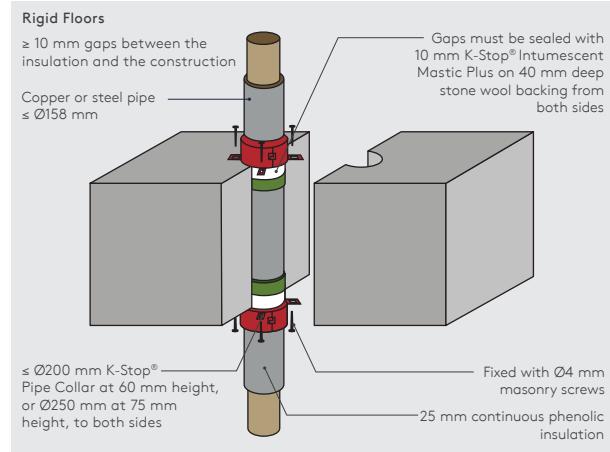


Figure F30: Copper or Steel Pipe Fire Resistance EI 60 C/C (E 120)



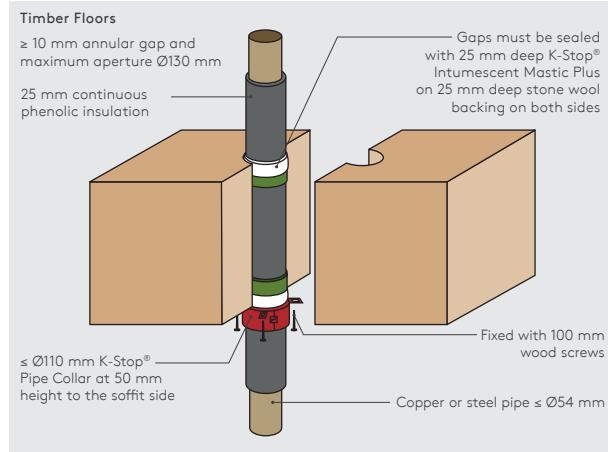
Rigid Floors

Figure F31: Copper or Steel Pipe Fire Resistance EI 60 C/C (E 120)



Timber Floors

Figure F32: Copper or Steel Pipe Fire Resistance EI 45 C/C (E 120)



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