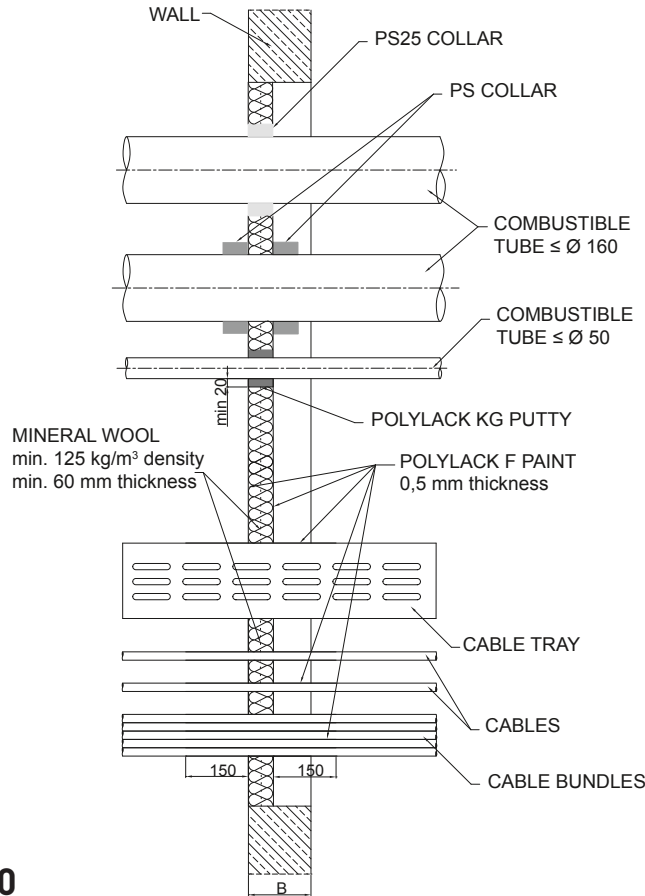
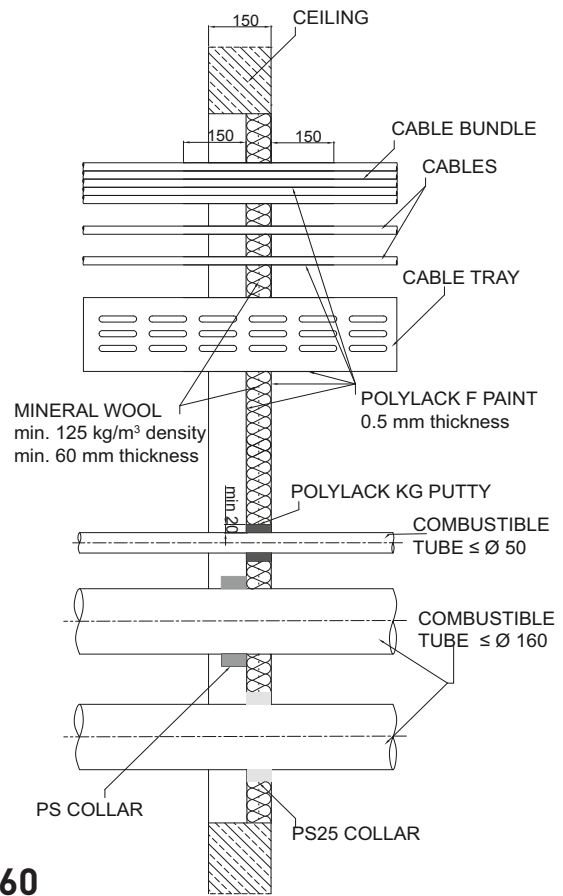


SEALING OF COMBINED PENETRATION IN WALLS AND CEILINGS BY SINGLE LAYER MINERAL WOOL



EI 60



EI 60

- The unevenness between walls, fittings and the mineral wool have to be sealed with Polylack K or KR putty.
- The collars have to be fixed to the wall and/or ceiling with threaded bolts made of steel.
- B = 120 concrete walls
B = 100 drywall walls
B = 150 solid brick and cell structure concrete walls

SEALING OF PENETRATION OF CABLES AND CABLE BUNDLES, CABLE TRAYS IN WALLS AND CEILINGS



1. The inner edge of penetration has to be cleaned from dust and smooth contaminations.
2. The cables and cable trays in the penetrations have to be painted with Polylack F paint.
3. The mineral wool, with min. 125 kg/m³ density and 60 mm. thickness have to be painted on both sides with Polylack F paint – paint thickness after drying should be 0.5 mm. If you are using the original Dunamenti wool, called Dunaboard this action may be left out.



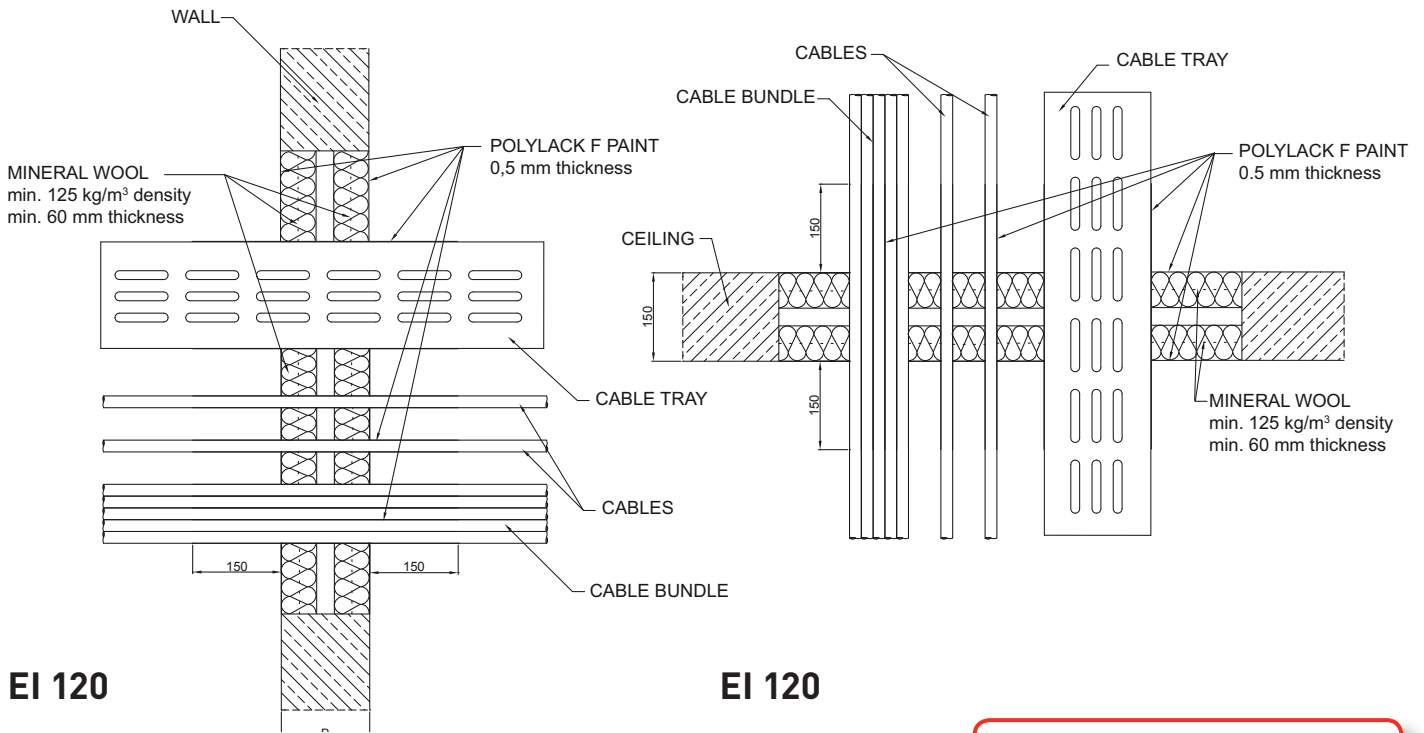
4. The sufficient sized wool pieces have to be cut out and they have to be inserted into the penetrations.
5. The cables and cable trays are to be painted with Polylack F paint in a length of 150 mm from the wall and it is to be painted only once so that the paint should create a homogeneous, even surface.



6. At combustible tubes up to a diameter of 160 mm PS 25 collars have to be located between the tube and the wall-edge and pushed till the surface of the wool and fixed with fire protection putty. In the case of PS collars those should be located on both sides of the wall but only from below on the ceiling. The collars have to be fixed with bolts having M6 threads or wood screws of the size M5x50 mm.
7. Combustible tubes up to 50 mm diameter can also be sealed with Polylack KG putty. For this purpose the wool has to be removed in its full thickness in form of a ring, round in a width of 20 mm. The gap established on this way has to be sealed by a putty knife or pusher-pistol with Polylack KG intumescent putty at the full thickness of the wool (60 mm).
8. The unevenness between walls, fittings and the mineral wool has to be sealed with Polylack K or KR putty.
9. Penetrations have to be marked:
 - applicator company name
 - name of the applied materials
 - fire resistance limit
 - number of the certification
 - application date

SEALING OF PENETRATIONS OF CABLES AND CABLE BUNDLES IN WALLS AND CEILINGS

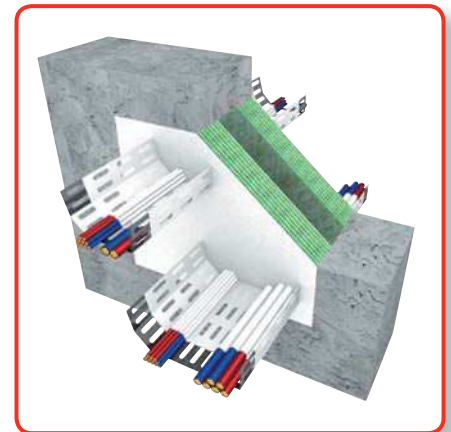
Tested according to EN 1366-3:2009 Classification: FIRES-JR-052-12-NURE



EI 120

EI 120

- The unevenness between walls, fittings and the mineral wool has to be sealed with Polylack K or KR putty.
- B = 120 concrete walls
B = 100 drywall walls
B = 150 solid brick and cell structure concrete walls



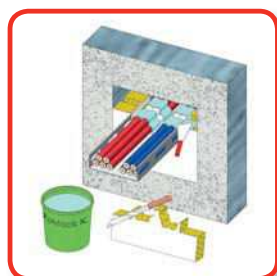
WAY OF MOUNTING AT CABLE PENETRATIONS:



1. The inner edge of penetration has to be cleaned from dust and smooth contaminations.
2. The cables and cable trays in the penetrations have to be painted with Polylack F paint.
3. The mineral wool, with min. 125 kg/m³ density and 60 mm. thickness have to be painted on both sides with Polylack F paint – paint thickness after drying should be 0.5 mm. If you are using the original Dunamenti wool, called Dunaboard this action may be left out.



6. The unevenness between walls, fittings and the mineral wool has to be sealed with Polylack K or KR putty.



4. The sufficient sized wool pieces have to be cut out and they have to be inserted into the penetrations.
5. The cables and cable trays are to be painted with Polylack F paint in a length of 150 mm from the wall and it is to be painted only once so that the paint should create a homogeneous, even surface.

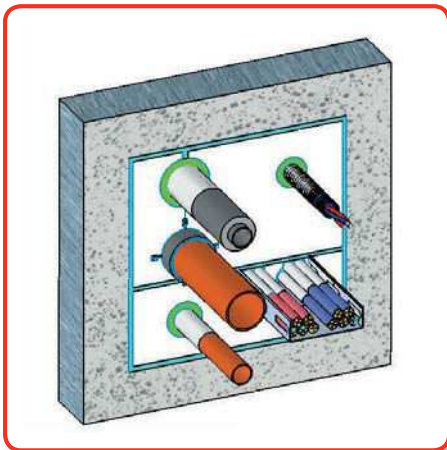


7. Penetrations have to be marked:
 - applicator company name
 - name of the applied materials
 - fire resistance limit
 - number of the certification
 - application date
 - applicator signature

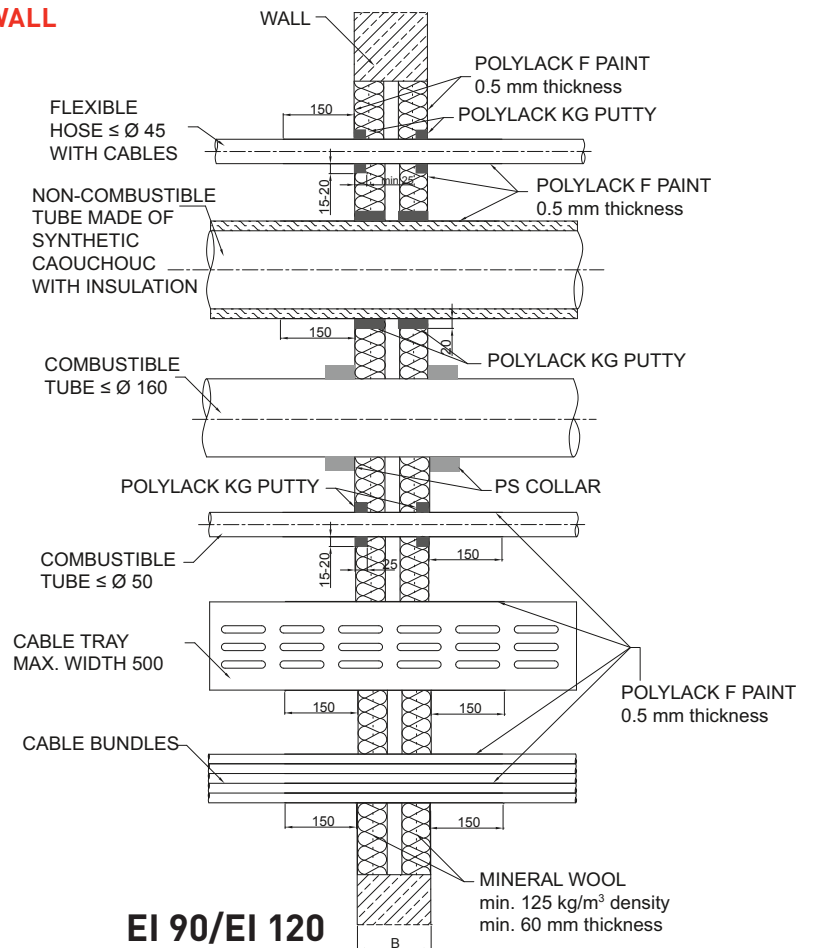
SEALING OF COMBINED PENETRATIONS IN THE WALL

Tested according to EN 1366-3:2009

Classification: FIRES-JR-052-12-NURE



- Collars have to be fixed to the walls/ceilings with threaded bolts made of steel.
- The unevenness between walls, fittings and mineral wool is to be sealed with Polylack K or KR putty.
- A = max. \varnothing 160 mm, for steel tubes
A = max. \varnothing 75 mm, for copper tubes
- B = 120 for concrete walls
B = 100 for drywall walls
B = 150 for solid brick and cell structure concrete walls



MOUNTING OF DOUBLE-LAYER COMBINED PENETRATIONS MADE OF MINERAL WOOL:



1. The inner edge of penetration has to be cleaned from dust and smooth contaminations.
2. The cables, cable trays, tubes and flexible hoses in the penetrations have to be painted with Polylack F paint.
3. The mineral wool, with min. 125 kg/m³ density and 60 mm. thickness have to be painted on both sides with Polylack F paint – paint thickness after drying should be 0.5 mm. If you are using the original Dunamenti wool, called Dunaboard this action may be left out.



7. Tubes up to 50 mm may also be sealed with Polylack KG putty. For this purpose the wool has to be removed in a depth of 25 mm in a ring form, round, in a width of 20 mm on both sides. The gap established on this way has to be sealed by putty knife or pusher-pistol with Polylack KG intumescent putty. Tubes are to be painted with Polylack F paint at a length of 150 mm from the wall, only once, so that an even, homogeneous layer should be created.



4. The sufficient sized wool pieces have to be cut out and they have to be inserted into the penetrations.
5. The cables and cable trays are to be painted with Polylack F paint in a length of 150 mm from the wall and it is to be painted only once so that the paint should create a homogeneous, even surface.
6. At combustible tubes up to a diameter of 160 mm PS collars have to be mounted at both sides of the wool. These are to be fixed with bolts of M6 thread or wooden screws of the size M5x50 mm.

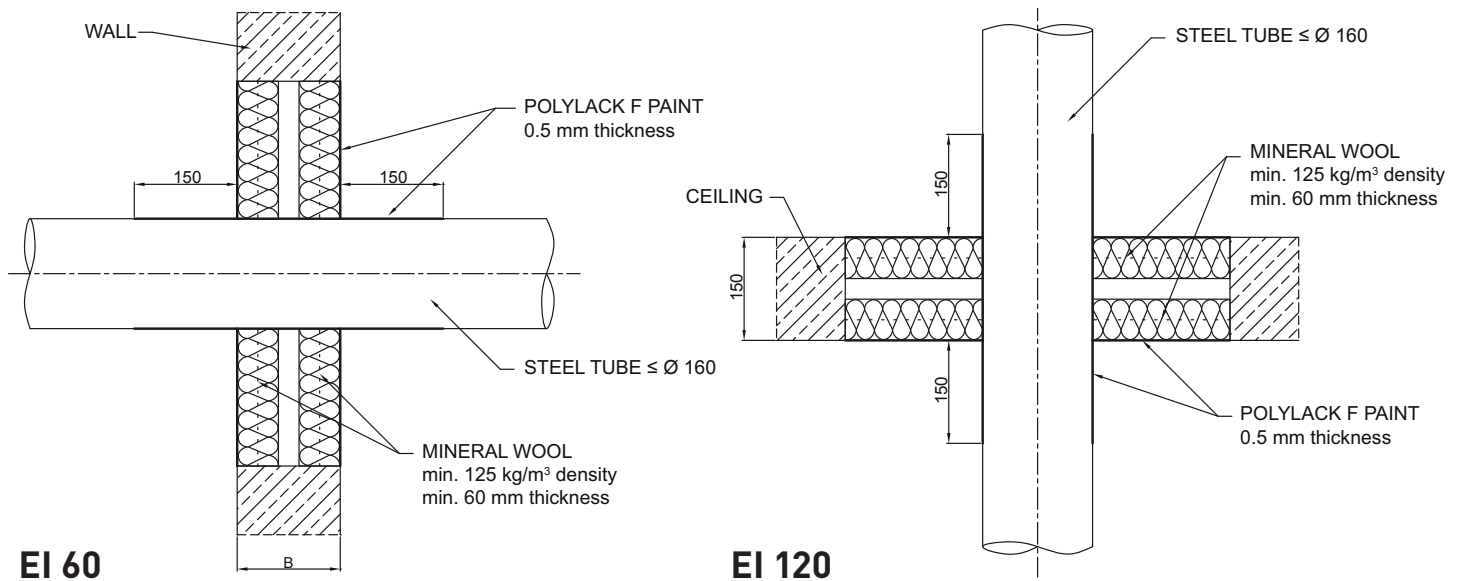


8. Flexible tubes up to 45 mm may also be sealed with Polylack KG putty. For this purpose the wool has to be removed in a depth of 25 mm in a ring form, round, in a width of 20 mm. The gap established on this way has to be sealed by putty knife or pusher-pistol with Polylack KG intumescent putty. Tubes are to be painted with Polylack F paint at a length of 150 mm from the wall, only once, so that an even, homogeneous layer should be created.

9. The insulated non-combustible tubes in penetration may to sealed with Polylack KG putty. For this purpose the wool has to be removed in its entirely thickness in a ring form, round, in a width of 20 mm. The gap established this way has to be sealed by putty knife or pusher-pistol with Polylack KG intumescent putty. Tubes are to be painted with Polylack F paint at a length of 150 mm from the wall, only once, so that an even, homogeneous layer should be created.
10. The unevenness between walls, fittings and the mineral wool has to be sealed with Polylack K or KR putty.
11. Penetrations have to be marked:
 - applicator company name
 - fire resistance limit
 - application date
 - name of the applied materials
 - number of the certification
 - applicator signature

SEALING OF PENETRATIONS OF STEEL TUBES IN WALLS AND CEILINGS:

Tested according to EN 1366-3:2009 Classification: FIRES-JR-052-12-NURE



- The unevenness between tubes, walls, accessories and the mineral wool has to be sealed with Polylack K or KR putty.
- B = 120 concrete walls
B = 100 drywall walls
B = 150 solid brick and cell structure concrete walls

WAY OF MOUNTING AT STEEL TUBES PENETRATION:



1. The inner edge of penetration has to be cleaned from dust and smooth contaminations.
2. The tubes in the penetrations have to be painted with Polylack F paint.
3. The mineral wool, with min. 125 kg/m³ density and 60 mm. thickness have to be painted on both sides with Polylack F paint – paint thickness after drying should be 0.5 mm. If you are using the original Dunamenti wool, called Dunaboard this action may be left out.



5. Tubes are to be painted with Polylack K paint in a length of 150 mm from the wall and those are to be painted only once so that the paint should create a homogeneous, even surface in thickness 0,5 mm. The unevenness between walls, fittings and the mineral wool has to be sealed with Polylack K or KR putty.



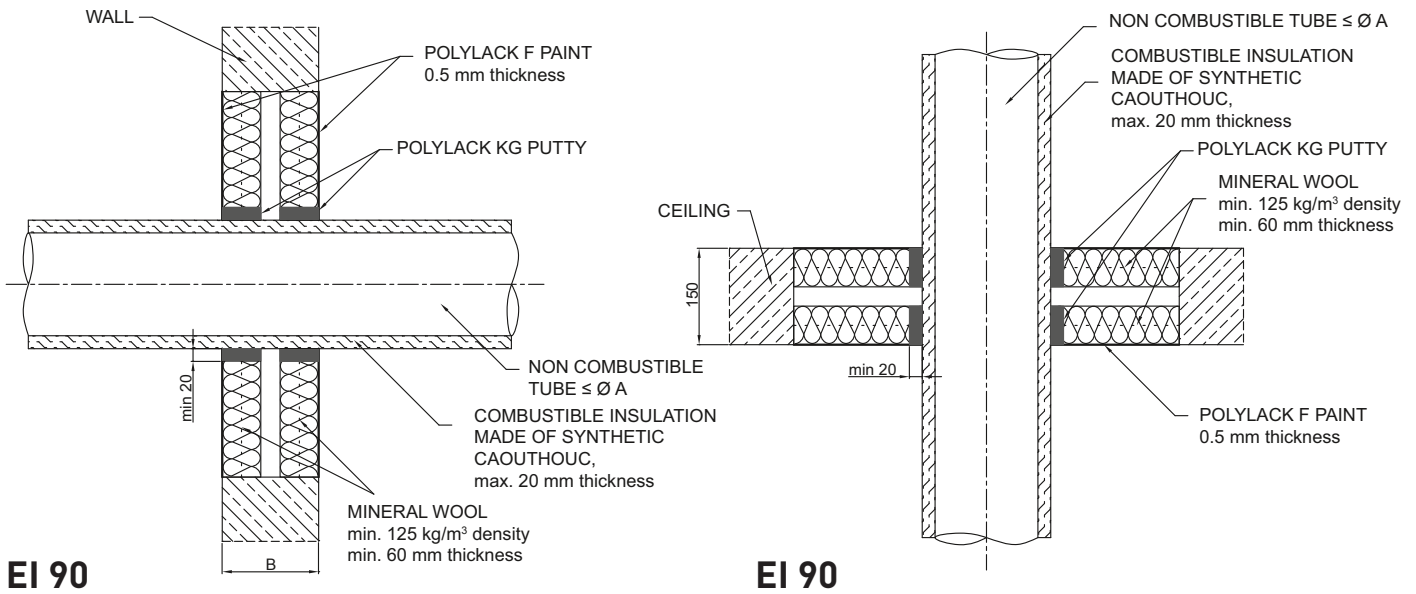
4. The sufficient sized wool pieces have to be cut out and they have to be inserted into the penetrations.



6. Penetrations have to be marked:
 - applicator company name
 - name of the applied materials
 - fire resistance limit
 - number of the certification
 - application date
 - applicator signature

SEALING OF PENETRATIONS OF INSULATED NON-COMBUSTIBLE TUBES IN WALLS AND CEILINGS:

Tested according to EN 1366-3:2009 Classification: FIRES-JR-052-12-NURE



- The unevenness between tubes, walls, accessories and the mineral wool has to be sealed with Polylack K or KR putty.
- A = max. \varnothing 160 mm, for steel tubes
- A = max. \varnothing 75 mm, for copper tubes
- B = 120 concrete walls
B = 100 drywall walls
B = 150 solid brick and cell structure concrete walls

WAY OF MOUNTING AT THE INSULATED NON-COMBUSTIBLE TUBE PENETRATIONS:



1. The inner edge of penetration has to be cleaned from dust and smooth contaminations.
2. The mineral wool, with min. 125 kg/m³ density and 60 mm. thickness have to be painted on both sides with Polylack F paint – paint thickness after drying should be 0.5 mm. If you are using the original Dunamenti wool, called Dunaboard this action may be left out.



6. The unevenness between walls and the mineral wool is to be sealed with Polylack K or KR putty.



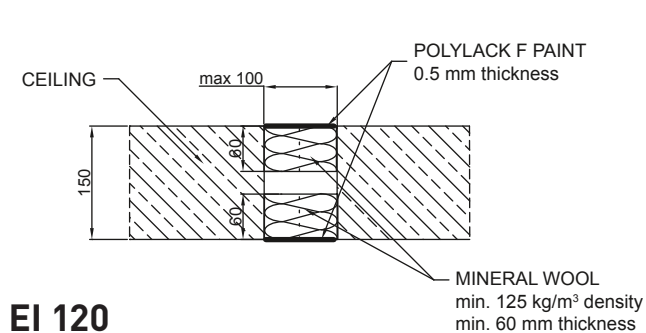
3. The sufficient sized wool pieces have to be cut out and they have to be inserted into the penetrations.
4. The wool has to be removed around the insulation in the thickness of 25 mm on both sides in a width of 20 mm.
5. The established gap is to be sealed by putty knife or pusher-pistol with Polylack KG intumescent putty.



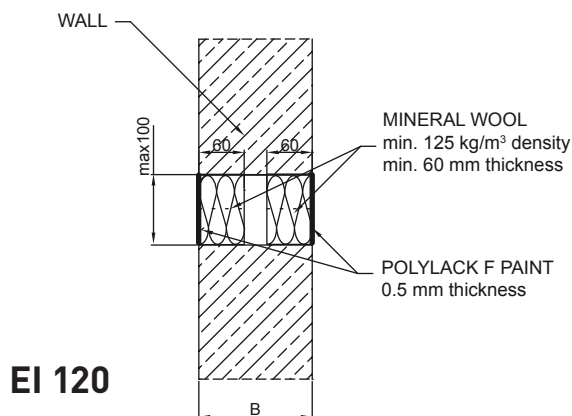
7. Penetrations have to be marked:
 - applicator company name
 - name of the applied materials
 - fire resistance limit
 - number of the certification
 - application date
 - applicator signature

SEALING OF PENETRATIONS OF CONSTRUCTION GAPS IN WALLS AND CEILINGS:

Tested according to EN 1366-4:2006+2010 Test report: FIRES-FR-131-14-AUNE



EI 120



EI 120

- B = 120 concrete walls
- B = 125 drywall walls
- B = 150 solid brick and cell structure concrete walls

WAY OF MOUNTING IN GAPS AND DILATATIONS:



1. The inner edge of penetration has to be cleaned from dust and smooth contaminations.
2. The mineral wool, with min. 125 kg/m³ density and 60 mm. thickness have to be painted on both sides with Polylack F paint – paint thickness after drying should be 0.5 mm. If you are using the original Dunamenti wool, called Dunaboard this action may be left out.



3. The sufficient seized wool have to be cut out and inserted in the penetration at both sides of the wall. These inserted parts are to be painted with Polylack F paint.
4. Small gap between the inserted mineral wool parts and the edge of the penetration is to be filled with Polylack K or Polylack KR putty.

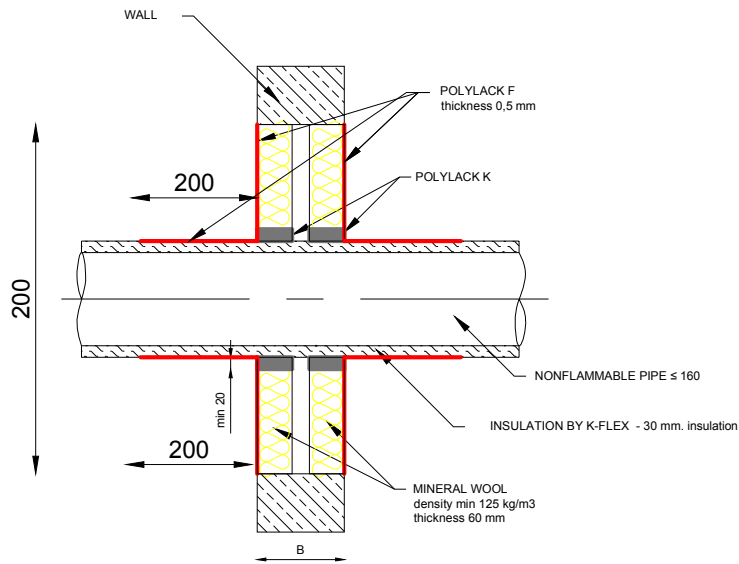


5. Penetrations have to be marked:
 - applicator company name
 - name of the applied materials
 - fire resistance limit
 - number of the certification
 - application date
 - applicator signature

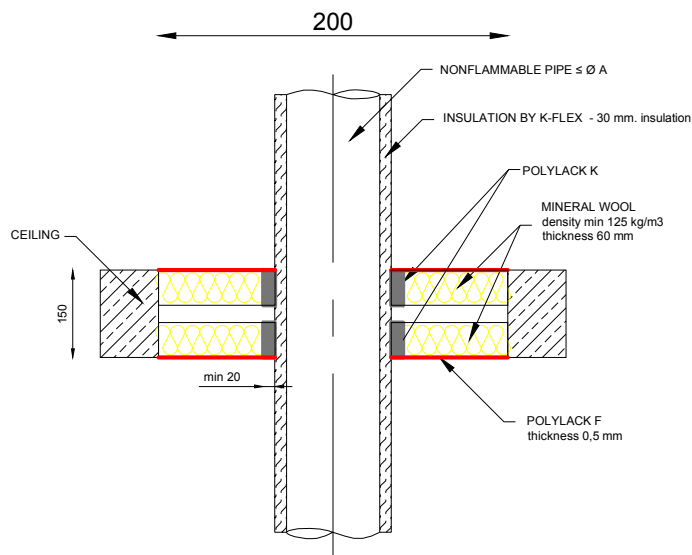
Wall and floor EI120

EI120. Certificate. FIRES-CR-097-12-AUPE

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- A = max DN 160 for steel pipe
= max DN 75 for copper pipe
- B = 120 concrete walls
= 125 plasterboard walls
= 150 for the walls of solid brick and aerated concrete

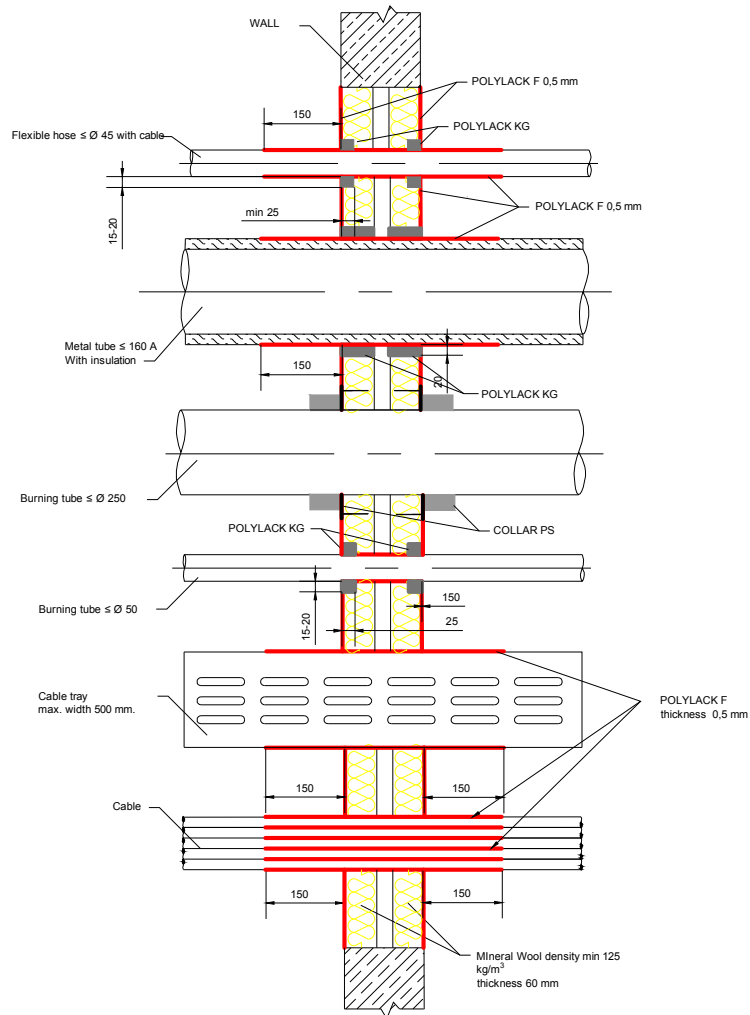


Tytuł / Title		Obiekt / Building		
Rysował / Was drawn by <i>Michał Strank</i>		Zastosowane produkty / Used products POLYLACK F, POLYLACK K Metal tube with insulation		
Nr rys. / No. of drawing <i>10/19/07/2016</i>	Skala / Scale <i>1:10</i>	Format <i>A4</i>	Arkuszy / liczba ark. <i>1/1</i>	

Wall EI240, EI120, EI90

Certificate. FIRES-JR-052-15-AUPE

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Tytuł/ Title		Obiekt/ Building	
Rysował / Was drawn by <i>Michał Stronk</i>	Data/Date 30/08/2016	Zastosowane produkty/ Used products MIXED PENETRATION	
Nr rys./ No. of drawing 5/30/08/2016	Skala / Scale <i>1:10</i>	Format <i>A4</i>	Arkusz / liczba ark. <i>1/1</i>
