

# How-to-read

charts Field of Application Firetect® fire rated building products

Firetect®

certification



Use FoA charts as *guideline* to quickly identify suitable Firetect products within classification.

**Always apply acc. details as stated per principle detail; see DoP, ANNEX A.**

Product certification of CE marked building products is done by DoPs (Declaration of Performance), rather than test reports; more info at [www.firetect.eu](http://www.firetect.eu). Charts do not include all test data. Contact KLF for non-standard (EI) requirements: +31 345 63 97 97 or [info@klf.nl](mailto:info@klf.nl).

## supporting construction

- 1 flexible wall  $\geq 100\text{mm}$ ; metal or timber studs, plaster board type A + wall insulation
- 2 rigid wall  $\geq 100\text{mm}$ : blockwork/concrete/masonry, density  $\geq 600 \text{ kg/m}^3$
- 3 rigid wall  $\geq 150\text{mm}$ : blockwork/concrete/masonry, density  $\geq 600 \text{ kg/m}^3$
- 4 flexible ceiling  $\geq 150\text{mm}$ : metal studs, plaster board type F
- 5 rigid floor  $\geq 150\text{mm}$ : (aerated) concrete, density  $\geq 600 \text{ kg/m}^3$

### Note

Constructive element must be classified acc. EN 13501-2 for the required fire resistance period.

tested in construction type **1**

also applicable in constructive element type **2+3** if wall thickness +  $\text{m}^3$  weight are either equal or increased

tested in construction type **2**

also application in constructive element type **3** if wall thickness +  $\text{m}^3$  weight are either equal or increased

tested in **PA board**

also applicable in **FR mortar** fireseal; contact KLF for more info

**"you may always upgrade, but never downsize"**

## pipe penetrations

type of **plastic**

all plastic pipe types acc. [EN norms](#)

type of **metal**

all copper or steel or pipes; also suitable for material with lower thermal conductivity + melting point at least equal to tested material

EI

fire resistance in minutes (integrity + insulation)

U/U + U/C + C/U + C/C

pipe end uncapped U / capped C at resp. exposed + unexposed side

pipe insulation

- all synthetic rubber min.  $60 \text{ kg/m}^3$  eg Armaflex

- all glass wool or rock wool min.  $75 \text{ kg/m}^3$  eg Climpipe or U Protect Pipe Section Alu2

- all polyolefin foam min.  $28 \text{ kg/m}^3$  eg Uponor

- all PIR min.  $33 \text{ kg/m}^3$

LS

local sustained = partly insulated pipe; **total** insulation length in mm through constructive element (symmetrically)

LI

local interrupted = partly insulated pipe; insulation length in mm **on either side** of constructive element

CS

continued sustained = entirely insulated pipe

CI

continued interrupted = entirely insulated pipe, yet interrupted in constructive element

max. opening

see principle detail, plus:

- allowed **oversize opening**  $\leq 15\text{mm}$  with collar + wrap; if larger, use PA board:

walls: max.  $600 \times 1200 \text{ mm} + 25\%$ , floors: max.  $1000 \times 1200 \text{ mm}$  up to  $600 \times 5000 \text{ mm}$

- allowed '**oversized**' collar  $\leq 15\text{mm}$ , eg use  $\text{Ø}90$  collar for  $\text{Ø}80$  pipe

### Note

Support pipes; support distance: see principle detail.

Fasten glass wool or rock wool individually (not wrapped!) with steel wire; see principle detail.

▶ INDEX

PE + PP + PVC

plastic cable conduits

PP-R

PP-MD

aluPE-X

PE-Xa

copper

steel

steel conduits

trays + ladders + wire mesh

cables + bundles

fire dampers

air transfer grilles

duct cladding

linear joints

socket boxes

how-to-read

acoustical

environmental

# How-to-read

charts Field of Application Firetect® fire rated building products

Firetect®

## cable penetrations

type of **service**

all steel (galvanised) cable trays + ladders, non-perforated + perforated

all steel (galvanised) mesh wire cable trays

fire resistance in minutes (integrity + insulation)

EI

minimum working spaces

	configuration	horizontal	vertical
Min. distances from opening edges	LARGE	35mm	30 mm
	MIXED	30 mm	0 mm
Min. distances between services	LARGE	5mm	100 mm
	MIXED	20 mm	20 mm

cable groups

group 1 - small sheathed	max. Ø 21mm
group 2 - medium sheathed	max. Ø 50mm
group 3 - large sheathed	max. Ø 80mm
group 4 - data + fibre optic	max. Ø 100mm bundle
group 5 - non-sheathed	max. Ø 23mm
conduit, steel or plastic	max. Ø 16mm

max. opening

see principle detail

**Note**

Support cable services; support distance: see principle detail.

## blank seals

EI

gaps + openings **without any service penetrations**

fire resistance in minutes (integrity + insulation)

up to [EI 120](#) for application in walls + floors

## disclaimer

Consult [www.firetect.eu/download](http://www.firetect.eu/download) for updates; product development + fire tests are ongoing processes at KLF.

[▶ INDEX](#)

[PE + PP + PVC](#)

[plastic cable conduits](#)

[PP-R](#)

[PP-MD](#)

[aluPE-X](#)

[PE-Xa](#)

[copper](#)

[steel](#)

[steel conduits](#)

[trays + ladders + wire mesh](#)

[cables + bundles](#)

[fire dampers](#)

[air transfer grilles](#)

[duct cladding](#)

[linear joints](#)

[socket boxes](#)

[how-to-read](#)

[acoustical](#)

[environmental](#)

## FoA plastic pipes

Firetect® fire rated building products are applicable for:

**PE**  
polyethylene

**aluPE-X**  
heating + water supply  
aka PEX-AL-PEX,  
Al-Composite or Multilayer

**PE-Xa**  
high pressure + temperature  
cross-linked PE

**PP**  
polypropylene

**PP-R**  
high pressure + temperature

**PP-MD**  
low noise

**PVC**  
polyvinyl chloride

PE-LD + PE-HD
dØ up to 250 mm s1 3,2 up to 22,7 mm
pipes within range (dØ+s1) acc.
EN 1519-1
EN 12666-1
EN 12201-2
EN ISO 15494
DIN 8074
DIN 8075
DIN 19535-10
eg Wavin TS Agru PE 100 Agru PE 100-RC

aluPE-X
dØ up to 75 mm s1 2,0 up to 7,5 mm
pipes within range (dØ+s1) acc.
EN 1519-1
EN 12201-2
EN 12666-1
EN ISO 15494
DIN 8074
DIN 8075
DIN 19535-10
eg Uponor MLC TECEflex Geberit Mepla Kekelit Kelox KM 110 Rehau Rautitan stabil Henco Alupex Begetube Alpex

PE-Xa
dØ up to 32 (54) mm s1 2,2 up to 4,4 mm
pipes within range (dØ+s1) acc.
EN 1519-1
EN 12201-2
EN 12666-1
EN 15875
EN ISO 15494
ISO 21003
DIN 8074
DIN 8075
DIN 19535-10
eg Uponor Aqua Geberit Mepla Kekelit Kelox KM 110 Rehau Rautitan flex Rehau Rautitan stabil

PP
dØ up to 250 mm s1 2,7 up to 22,7 mm
pipes within range (dØ+s1) acc.
EN 1451-1
EN ISO 15494
EN ISO 15874
DIN 8077
DIN 8078
eg Dyka PP Agru PP-H

PP-R
dØ up to 110 mm s1 3,7 up to 15,1 mm
pipes within range (dØ+s1) acc.
EN 1451-1
EN ISO 15494
EN ISO 15874
ISO 21003
DIN 8077
DIN 8078
eg Aquatherm Blue Aquatherm Green Aquatechnik PP-R Akatherm PP-R Wavin Pilsa

PP-MD
dØ up to 160 mm s1 1,8 up to 5,4 mm
pipes within range (dØ+s1) acc.
EN 1451-1
EN ISO 15494
EN ISO 15874
DIN 8077
DIN 8078
eg Uponor Decibel Geberit Silent-PP Pipelife Master 3 Rehau Raupiano Plus Poloplast Polo-Kal NG / 3S Wavin SiTech / AS Valsir Silere / Triplus

PVC + PVC-C + PVC-U
dØ up to 400 mm s1 2,7 up to 22,7 mm
pipes within range (dØ+s1) acc.
EN 1329-1
EN 1453-1
EN 1452
EN 1566-1
EN ISO 15493
ISO 15877
DIN 8061
DIN 8062
DIN 19531-10

*Scope of pipes tested with Firetect products*

*Fire performances are valid for range of pipe diameter **dØ** + pipe wall thickness **s1** within the same pipe material.*

Per Foa chart (pipe **material**) is stated which Firetect product to use within range (dØ+s1).

Always install services acc. manufacturer's instructions; support distance ≤ 500mm (walls) and ≤ 400mm (floors).

[▶ INDEX](#)

[PE + PP + PVC](#)

[plastic cable conduits](#)

[PP-R](#)

[PP-MD](#)

[aluPE-X](#)

[PE-Xa](#)

[copper](#)

[steel](#)

[steel conduits](#)

[trays + ladders + wire mesh](#)

[cables + bundles](#)

[fire dampers](#)

[air transfer grilles](#)

[duct cladding](#)

[linear joints](#)

[socket boxes](#)

[how-to-read](#)

[acoustical](#)

[environmental](#)