How-to-read charts Field of Application Firetect® fire rated building products

supporting construction

product has been tested in + certified for constructive element, type:

1 standard flexible walls ≥100mm; default: acc. EN 1361-1 (metal or wooden studs, plaster board type A, wall insulation ≥ 50mm, density ≥ 37 kg/m^3)

2 standard rigid walls ≥100mm: blockwork/concrete/masonry, density ≥ 650 kg/m^3

3 standard rigid walls ≥150mm: blockwork/concrete/masonry, density ≥ 650 kg/m^3

4 standard flexible ceilings ≥150mm: metal stud

5 standard rigid floors ≥150mm: (aerated) concrete, density ≥ 650 kg/m^3

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tested in construction type **1** = also applicable in constructive element type **2+3,** if wall thickness + m^2 weight are either equal or increased

tested in construction type **2** = also application in constructive element type **3,** if wall thickness + m^2 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"

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certification

C E   E TA
European Organisation for Technical Assessment

standard classification

product has been tested + certified within indicated range, eg EI 60 for PE/PP/PVC ≤ Ø 250mm

individual test results

product has been tested + certified for indicated specification, eg EI 120 for PVC ≤ Ø 50, pipe wall thickness ≤ 3,4 mm

Charts do not include all test data. Contact KLF for non-standard (EI) requirements: +31345 63 97 97 or info@klf.nl

Product certification of CE marked building products is done by DoPs, rather than test reports; more info at www.firetect.eu

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max. opening

product has been tested in opening of supporting construction + certified for:

see right column *"max. opening (mm)"* or:

in PA board

walls ≤ 600x1200mm + 25%

floors ≤ 1000x1200mm up to 600x5000mm

for penetration type

single or bundled or **MIXED** in 1 opening:

- PE/PP/PVC pipes ≤ Ø 110mm
- aluPE-X pipes ≤ Ø 25mm + Armalfex
- copper pipes ≤ Ø 22mm + Armalfex
- steel pipes ≤ Ø 101mm + Armalfex
- cable trays ≤ 500mm with misc. cable configurations (LARGE + MIXED)

pipe collar + wrap

allowed oversize opening ≤ 15mm; if larger, use PA board

allowed 'oversized' collar ≤ 15mm, eg use Ø90 collar for Ø80 pipe

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definitions

DoP	Declaration of Performance
EI	fire resistance in minutes (integrity + insulation)
U/U + U/C + C/U	pipe end test configuration: uncapped/uncapped, uncapped/capped or capped/uncapped
LS	pipe insulation: local sustained test configuration = total length in mm through constructive element (not interrupted)
LI	pipe insulation: local interrupted test configuration = length in mm on either side of constructive element (interrupted)
1S or 2S	1 side or 2 sides coated (PA board)

field of application
cable penetrations

steel cable trays / ladders / baskets

fire resistance - EI classification a... N 13501-2 / EN 1366-3
certifica...on - EAD ...6-02

firetect®
...14 01-12-2017

penetration size + specs

tested supporting construction

suitable Firetect product with EI performance; multiple options possible !

max. allowed constructive opening in supporting wall or floor

use PA board or FR mortar to close constructive opening or if annular space is larger

product finish, if required

tray size (mm)	cable type + specs	conduct.	Graphite DoP CPR-14/0273	or	Acrylic or PA sealer DoP CPR-14/0273	support distance (mm)	max. opening (mm)	FR mortar DoP CPR-14/0260	or	PA board DoP CPR-14/0260	PA coating DoP CPR-14/0260
standard classification ≤ 500											
trays ≤ 500mm non-perforated + perforated **ladders** ≤ 300mm	all standard cable types: ≤ Ø 21mm Small insulated; ≤ Ø 61mm Medium insulated; ≤ Ø 80mm Large insulated; ≤ Ø 100mm telecom cable bundle; ≤ Ø 23mm NON-insulated; **LARGE** config.; all standard conduits: ≤ 3x Ø 16mm steel / plastic	1+2+3+5			EI 60 in walls 1+2+3; EI 30 in walls 1+2+3; EI 30 in walls 2+3; EI 60 in floors		600x1200; 600x1200; 600x1200; 600x5000	100mm; 100mm; 50mm; 100mm		2x 50mm 2S; 2x 50mm 2S; **1**x 50mm 2S; 2x 50mm 2S	**NO** coating on cables, cable trays or construction !
trays ≤ 500mm non-perforated + perforated **ladders** ≤ 300mm	all standard cable types: ≤ Ø 21mm Small insulated; ≤ Ø 47mm Medium insulated; ≤ Ø 52mm Large insulated; ≤ Ø 100mm telecom cable bundle; ≤ Ø 23mm NON-insulated; **MIXED** config.; all standard conduits: ≤ 3x Ø 16mm steel / plastic	1+2+3+5	EI 60 in walls 1+2+3	or	EI 60 in walls 1+2+3	at 500mm	600x1200 + 25% = 0.9 m²	FR mortar 100mm		PA board 2x 50mm 2S	**NO** coating on cables, cable trays or construction !
			EI 60 in floors		EI 60 in floors	at 250mm + 400mm	600x5000	FR mortar 100mm		PA board 2x 50mm 2S	

distance between trays / ladders / baskets: horizontal ≥ 5mm; vertical ≥ 100mm
distance from opening edges: horizontal ≥ 35mm; vertical ≥ 30mm
allowed cable fill: ≤ 60% Cu

other cable configurations

1 walls: metal stud ≥100mm
2 walls: blockwork ≥100mm
3 walls: blockwork ≥150mm
5 floors: aerated concrete ≥150mm

tested supporting construction

Example:
cable tray in wall ≥ 100mm is EI 60 if cables are sealed off with Graphite or Acrylic 5mm on 2 sides.
Use PA board 50mm to seal opening, max.0.9 m².
Note: coat back on cables, cable tray or wall is **NOT** required!

always apply on 2 sides, also in floors!
joint details: min. 5 mm width x full depth in walls + floors
DLS system: also apply 5 mm width joint seal around basket
* use rock wool backing

additional info, check regulary www.firetect.eu for latest TDS + DoP + FoA

'butter' cross cut edges of PA board + opening with PA coating or Acrylic or PA sealer

LI = x00mm per side + mix with loose rock wool