



Hyperscale Data Centre Fire Protection Checklist



Design, Execution, QA/QC and Handover
for Mission-Critical and Hyperscale Facilities in Europe

Prepared by Novio Firestop B.V.

Passive fire protection for hyperscale and mission-critical environments

Introduction

This checklist is intended for engineers, QA/QC managers, werkvoorbereiders, project leaders and Tier-1 contractors involved in hyperscale and mission-critical data-centre projects.

In large European data centres, passive fire protection is a design-critical and audit-driven discipline. Non-compliant fire stopping, missing documentation or inadequate coordination frequently results in NCRs, delayed inspections, rework and commissioning risk.

This checklist provides a structured way to verify whether fire-protection requirements are being addressed correctly across design, execution, inspection and handover.

**If any item in this checklist cannot be confidently confirmed,
the data centre carries unmanaged fire-protection risk.**

A – DESIGN & ENGINEERING READINESS

A1. Fire strategy and scope

- Fire strategy approved and aligned with local and European regulations
- Fire-stopping scope clearly defined within project responsibilities
- Fire resistance ratings identified per wall, floor and compartment
- Interfaces between fire stopping, structure and MEP defined

A2. Fire-stopping design responsibility

- Design responsibility for fire stopping clearly assigned
- Fire-stopping details coordinated with architectural/structural design
- Service routing reviewed against fire-stopping feasibility
- Late design changes assessed for fire-protection impact

A3. Tested systems selection

- Penetration types identified (cables, pipes, ducts, mixed services)
- Substrates defined (concrete, steel, drywall, composite systems)
- Annular space ranges confirmed
- Tested and certified systems selected per condition
- No 'assumed compliance' or untested configurations

A4. BIM / CDE integration

- Fire-stopping strategy integrated into BIM or CDE
- Penetrations uniquely identifiable (ID or reference)
- Fire-stopping data fields defined (system, rating, installer, date)

B – COORDINATION & SITE EXECUTION

B1. Coordination with other trades

- Fire-stopping coordinated with MEP and CSA trades
- Installation sequencing agreed
- Access to both sides of penetrations planned
- No sealing prior to service finalisation

B2. Permit-to-close and control

- Permit-to-close or equivalent control system in place
- Fire-stopping installed only after approval
- Temporary or future penetrations clearly identified and managed

B3. Installation conditions

- Substrates prepared and clean
- Environmental conditions suitable for system installation
- Installation carried out by trained and authorised personnel
- Installation strictly follows tested system configuration

C – MATERIALS & SYSTEM COMPLIANCE

C1. Product approval

- CE-marked products approved for project use
- Products approved within project specifications
- Compatibility with services and substrates verified

C2. Standards and certification

- Systems tested to EN 1366-3 or equivalent
- Fire ratings meet project fire strategy requirements
- System limitations clearly understood and respected

D – QUALITY CONTROL & INSPECTION

D1. Benchmarks and mock-ups

- Fire-stopping benchmarks or mock-ups approved
- Installation quality aligned with approved benchmark

D2. Inspection and Test Plans

- ITP defined and approved
- Inspection hold points identified
- Inspections carried out in accordance with ITP

D3. NCR management

- NCR process clearly defined
- Non-conformances recorded and corrected
- Repairs documented and re-inspected

E – DOCUMENTATION & TRACEABILITY

E1. Fire-stopping logs

- Fire-stopping log maintained per penetration
- Unique reference assigned to each penetration
- System type, fire rating and location recorded

E2. Labelling

- Fire-stopping labels installed at each penetration
- Labels include reference, installer and installation date
- Labels remain visible and legible

E3. Photographic evidence

- Photographic evidence recorded before and after sealing
- Photos linked to penetration references
- Photos stored within project documentation system

E4. Digital records

- Logs, photos and drawings uploaded to BIM/CDE
- Records updated continuously, not only at handover

F – HANDOVER & LIFECYCLE MANAGEMENT

F1. As-built documentation

- As-built drawings completed and verified
- Fire-stopping logs complete and accurate
- O&M documentation issued

F2. Authority and third-party approvals

- Fire-stopping works ready for authority inspection
- Third-party approvals obtained where required
- Outstanding issues closed prior to commissioning

F3. Future modifications

- Fire-stopping strategy allows for future service changes
- Procedures defined for reopening/resealing penetrations
- Responsibility for lifecycle fire protection clearly assigned

FINAL CHECK

- All checklist items reviewed and confirmed
- Outstanding risks identified and mitigated

If any item above cannot be confirmed, the fire-protection integrity of the data centre cannot be guaranteed.

Document control and disclaimer

This document has been prepared with care. Fire-stopping solutions are project- and condition-specific. No rights can be derived from this checklist. Novio Firestop B.V. accepts no liability for application without project-specific verification.

Quick audit

For use during site inspections and QA rounds.

PROJECT

DATE

LOCATION / ZONE

INSPECTOR

	OK	NCR	N/A
All penetrations are uniquely identified and labeled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Installed system matches tested/approved system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No visible damage caused by subsequent trades	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire-rated seals properly restored where required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Logbook and photos are present and up to date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outstanding NCRs have been resolved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Installation carried out by certified personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NOTES

SIGNATURE INSPECTOR

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About Novio Firestop

Novio Firestop supports hyperscale and mission-critical data-centre projects across Europe with engineered passive fire-protection solutions. We work with Tier-1 contractors, engineering firms and QA/QC teams to deliver compliant fire stopping, reduce NCR risk and support on-time commissioning. For technical support, design review or execution of data-centre fire-protection scopes, contact Novio Firestop.

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IN PASSIVE FIRE PROTECTION