

3M Science. Applied to Life.™

Building Protection Solutions for Data Center Construction

Peace of Mind, by Design

3M™ Building Protection Solutions deliver reliable, code-compliant systems designed for the unique demands of data center construction. From passive fire protection to HVAC and piping insulation jacketing, our solutions help maintain uptime, reduce risk, and support energy-efficient operation.

Key Challenges in Data Center Construction

- High volume of penetrations requiring effective firestopping
- Condensation in chilled water and HVAC systems
- Need for airtight environmental control
- Strict building codes and accelerated construction timelines
- Long term durability to minimize downtime and repairs

Benefits of 3M Solutions

- Installation-friendly systems that help keep projects on schedule
- Enhanced mechanical asset and insulation protection with reliable durability
- Confidence in code compliance and long-term performance
- Products designed to address demanding application challenges, including extreme temperatures

Explore all 3M Building Protection Solutions for Data Centers

3M.com/data-center-protection

Applications:



Fire Protection for Cable Trays, Conduit and Pipe Penetrations and Critical Circuitry



HVAC Ductwork and Piping insulation Jacketing



Fire Protection for HVAC



Fire Protection for Construction Joints

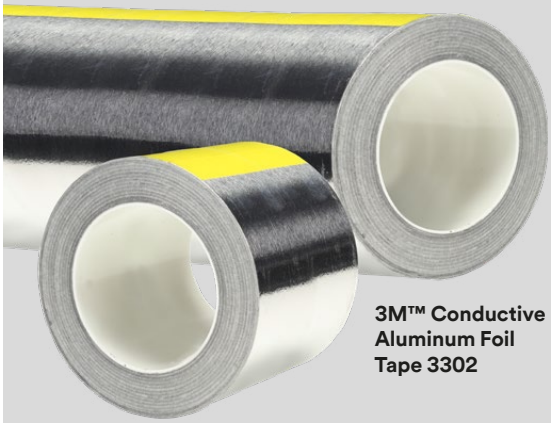
Fire Protection for Cable Trays, Conduit and Pipe Penetrations, and Critical Circuitry

Data centers contain thousands of openings for power, communications, fiber, and mechanical systems. Each penetration or tray pathway can allow fire, smoke, and toxic gases to move between compartments. 3M firestop systems help provide fast, consistent installation and meet building code requirements. Endothermic protection materials help safeguard mission-critical circuitry and support operational continuity.

Key 3M™ Solutions:

Many of the below products have a variety of sizes to choose from.

Venture Tape™ EMI/RFI Shielding Solution



3M™ Conductive Aluminum Foil Tape 3302



3M™ Fire Barrier Self-Locking Pillows FB269SL



3M™ Fire Barrier Pillows FB269



3M™ Interam™ Endothermic Mat E-5A-4



3M™ Fire Barrier Composite Sheet CS-195+



3M™ Fire Barrier Block B258



3M™ Fire Barrier Plug PLG2



3M™ Fire Barrier Rated Foam FIP 1-Step



3M™ Fire Barrier Sealant CP 25WB+



3M™ Fire Barrier Putty Sleeve Kit DT 200



3M™ Fire Barrier Moldable Putty Stix & Putty Pads MP+



3M™ Fire Barrier Pass-Through Device PT2RD



3M™ Fire Barrier Water-Tight Sealant 3000 WT



3M™ Fire Barrier Sealant FD 150+



3M™ Fire Barrier Ultra Plastic Pipe Device



3M™ Fire Barrier Tuck-In Wrap Strips and Rolls



3M™ Fire Barrier Electrical Box Inserts

HVAC Ductwork, Air Distribution and Piping Insulation Jacketing

Data centers rely on chilled-water, liquid-cooling, and air distribution systems, where cold surfaces can create condensation and increase the risk of moisture intrusion, corrosion, and reduced energy efficiency. 3M insulation jacketing solutions provide a zero-permeability vapor barrier designed to help protect insulation and support long-term performance.

Key 3M™ Solutions:



3M™ Venture Tape™ Line Set Tape 1507



3M™ VentureClad™ 1577 and 1579 Insulation Jacketing



3M™ Venture Tape™ Cryogenic Vapor Barrier Tape 1555CW/W



3M™ Venture Tape™ UL 181B-FX Polypropylene Duct Tape 1599B



3M™ Venture Tape™ UL 181A-P Aluminum Foil Tape 1581A

Fire Protection for HVAC

HVAC systems in data centers include ductwork, ventilation, and mechanical penetrations that pass throughfire-rated walls and floors. If these openings are not properly protected, they can allow fire, smoke, and heat to spread between critical areas. 3M wraps and sealants help restore the fire rating of these assemblies and support continuity in both new construction and retrofit applications.

Key 3M™ Solutions:



3M™ Fire Barrier Plenum Wrap 5A+



3M™ Fire Barrier Duct Wrap 615+

Fire Protection for Construction Joints

Construction joints, including head-of-wall, floor-to-floor, wall-to-wall, and perimeter joints, move over time due to thermal expansion, building vibration, and structural loading. In data centers, maintaining fire-rated performance across these joints is essential for compartmentalization and business continuity. 3M joint protection solutions are engineered to help maintain the integrity of fire-rated assemblies while accommodating normal building movement.

Key 3M™ Solutions:

Many of the below products have a variety of sizes to choose from.



3M™ Fire and Water Barrier Tape



3M™ Fire Barrier Water Tight Sealant 1003 SL



3M™ Fire Barrier Water Tight Sealant 1000 NS



3M™ FireDam™ Spray 200



3M™ Fire Barrier Sealant FD 150+

Explore Building Protection Solutions for data centers, access product resources, and connect with 3M experts - all in one place.

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