Firestop

What is Firestop
Where Required
Why Important
Who Installs
Type of Products
How to Install
A/T Firestop and Fireproofing SOLUTIONS Inc.

PERSONAL PROFILE:

Victor Wootton
- 5 years with A/D Fire Protection Systems
  - Manufacture rep and Product Manager
- 10 years managing A/T Firestop
A/T Firestop and Fireproofing SOLUTIONS Inc.

COMPANY PROFILE

✨ Specialty Firestop Contractor
✨ Over 15 years Experience
✨ In Process of becoming ULC Accredited
What is Firestop?

A firestop, is a fire protection system made of various components used to seal openings and joints in fire-resistance rated wall and/or floor assemblies.
Compartmentalize

- This hotel has fire rated walls and floors
- Maintain Fire Separations
- Each unit is firestopped to contain the fire (and smoke) from spreading
Definitions

- **Rating** criteria are derived from the standard CAN/ULC-S115.
- **Intumescent** is a substance which swells as a result of heat exposure, thus increasing in volume.
- **NBCC Ratings:**
  - F (Fire) Ratings are the standard ratings required by the NBCC for the vast majority of situations.
  - FT (Transmission of Heat) Ratings are required at firewalls and at floors above basements.
Definitions

- **Annular Space** - the opening around the penetrating item.
- **Penetrating item** – building services; cables, cable trays, conduits, ducts, etc. that pass through a F.R. wall or floor.
- **Firestop System** – Firestop material tested in specific assembly
Where is Firestop Required?

- **All** new construction & retrofit projects.
- Industrial, Institutional & Commercial
  - Apartment Buildings
  - Hospitals
  - Schools
  - Nursing Homes
  - Office Buildings
Where is Firestop Required?

- Where fire rated assemblies are being penetrated
  - Fire Command Centers
  - Stairwells
  - Mechanical rooms
  - I.T. Rooms
  - Etc.
Why is Firestop Important?

❖ Life Safety
❖ Building Code Requirement
  o Occupancy
❖ Liability
❖ Water Seal
❖ Limit Losses
  o Production
Who Installs Firetop?

- Specialty Firestop Contractors
- Trades
  - Drywall
  - I.T.
  - Plumber
  - Electrician
  - Mason
  - Etc.
Firestop Products

- Mineral Wool
- Intumescent Sealant
- Silicone
- Silicone SL
- Acrylic Sealant
- Spray
- Mortar
- Foam
- Collars
- Wrap Strip
- Putty Pads
- Inserts
- Putty
- Pillows/Blocks
- Sleeves
- Composite Sheets
Mineral Wool

- Firestop Backer
  - Rock Fiber
  - Pre-cut to required width & depth
  - Size:
    - 2” wide X 4” deep X 48” long
    - 3” wide X 4” deep X 48” long
    - 4” wide X 4” deep X 48” long
Intumescent Sealant

- Premium Sealant
- Expand with heat
- Listed in majority of Tested Systems
  - Cables
  - Small Plastic Pipes
Silicone (non-sag and self-leveling)

- Water resistant
- Usable at any temperature
SILICONE (self-leveling)
Acrylic Sealant

- Water Based
- Economical
Firestop Spray

- Fast
- Less Material
- Economical
Mortar

- Light Weight
- Large Openings
Large Opening Solution
Can remedy an opening as big as 24 sq. ft. in one day
Collar

- Device for Plastic Pipes
- Expand to close melting pipe
WRAP STRIP

- Plastic Pipes (Similar to Collars)
- Make Collars on Site
- Economical
- One Size
Putty Pads

- Installed around back of electrical box
- Allows for closer placement of boxes in Fire Separations
Inserts

- Installed inside at back of electrical box
- Allows for closer placement of boxes in Fire Separations
- Ideal for retrofit where back of box is not accessible
PUTTY

- For Moderate Active Openings
- Stays pliable
- Reusable
- No sealant required
Pillows

❖ For Active Openings
❖ Reusable
❖ No sealant required
How to Install Material

- Select Systems that are Project Specific (submittal)
- What is the rating required?
- What is penetrating floor or wall?
- What is floor or wall made of?
- What is the Annular Space?
• 2 hour rated concrete floor
• 2” Copper pipe penetration
• 0” to 1” Annular Space
1. Floor or Wall Assembly — Min. 4-1/2 in. thick reinforced lightweight or normal weight (100-150 psf) concrete. Floor may also be constructed of any min. 6 in. thick hollow-core Precast Concrete Units. Wall may also be constructed of any UL Classified Concrete Blocks. Max. diam of opening is 4-1/2 in. larger than diam of through-penetration (item 2). Max. diam of opening in floors constructed of hollow-core precast concrete units is 7 in.

See Concrete Blocks (CAZC) or Precast Concrete Units (CFTY) categories in the Fire Resistance Directory for names of manufacturers.

2. Through-Penetration — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the floor/roof system. Pipe, conduit or tubing to be rigidly supported on both sides of floor or wall assembly. The annular space shall be min. 0 in. (point contact) to max. 4-1/8 in. The following types and sizes of pipes, conduits or tubing may be used:

A. Steel Pipe — Nom 24 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
B. Iron Pipe — Nom 24 in. diam (or smaller) cast or ductile iron pipe.
C. Conduit — Nom 6 in. diam (or smaller) steel electrical metallic tubing or steel conduit (EMT).
D. Copper Pipe or Tubing — Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.
Thank you

Questions?