

1.0 **GENERAL**

1.1 **Related Work and UBC Guidelines**

- .1 Section 07 00 10 Building Envelope – General Requirements
- .2 Coordinate with firestopping requirements in Divisions 21, 26 and 27.

1.2 **Related External Documents**

1. Latest edition of the British Columbia Building Code (BCBC).
2. CAN/ULC S115-11, "Standard Method of Fire Tests of Firestop Systems".
3. ULC List of Equipment and Materials:
 - .1 ULC or cUL listed firestop assemblies for intended application.

1.3 **Description**

1. Firestopping systems as required by architectural, mechanical and electrical disciplines.

1.4 **Coordination**

- .1 The Guidelines apply to all work completed within buildings on both UBC Vancouver and UBC Okanagan campuses unless stated otherwise.
- .2 In instances where conflicts are found between these guidelines and provincial regulations or codes, please notify the UBCV Technical Review Team Architect or UBCO Facilities Management.
- .3 These guidelines are intended to be read by design consultants and their content integrated into construction drawings and specifications. Construction documents are not to reference the technical guidelines directly.
- .4 The Coordinating Registered Professional (CRP) is required to coordinate these requirements with other disciplines.

1.5 **Submittals**

- .1 Submit required documents to consultants in accordance with Section 013300 Submittal Procedures.
- .2 O&M Submittals
 - .1 Shop drawings/ product sheets indicating location of firestopping, and ULC/cUL listings.
 - .2 Tag service penetrations and every 3.0 meters of joint seal with printed tags indicating name and phone number of subcontractor and the following statement: "CAUTION! FIRESTOP: DO NOT RE-ENTER, PUNCTURE OR DESTROY UNLESS PREPARED TO RE-SEAL IMMEDIATELY WITH PROPER, ULC-APPROVED METHOD. ALL NEW WORKS SHALL BE REVIEWED BY UBC PERMITS & INSPECTIONS."
 - .3 Manufacturer performance test data to confirm performance criteria.
 - .4 Manufacturers Safety Data sheet (MSD) for all toxic or potentially toxic materials.
 - .5 Environmental Product Declaration (EPD).
 - .6 Maintenance Data
 - .7 Method for replacement of the firestopping system.
 - .8 Maintenance instructions

1.6 **Quality Control and Assurance**

- .1 Quality Assurance
 - .1 Ensure that other sections are aware of the maximum and minimum clearance requirements to the penetration stipulated by the Underwriter's design listing.
- .2 Quality Control
 - .1 Installer to be certified by product manufacturers for installation of products, including for safety and so as to ensure warranties are not affected.
 - .2 Do not mix products in the system from differing manufacturers.
 - .3 Use the same product for all like applications.

- .3 Commissioning
 - .1 Prior to occupancy and during demonstration and training for UBC maintenance crews, provide a comprehensive seminar to UBC's mechanical and electrical staff on the purpose and nature of the firestop systems used. Include a demonstration with "hands-on" session on re-entry, re-sealing and all safety aspects of the firestops.

2.0 DESIGN AND PERFORMANCE REQUIREMENTS

2.1 Design Requirements

- .1 Firestopping to be designed to act as a firestop and smoke seal within fire-resistive wall and floor assemblies for any penetrating items such as cables, cable trays, conduits, ducts, pipes or any poke-through termination devices, such as electrical boxes along with their means of support through the wall or floor opening.
- .2 Provision of firestopping materials at fire-resistive wall and floor assemblies such as joints at intersections of dissimilar construction.
- .3 Systems that have Environmental Product Declarations (EPD) are preferable.

2.2 Performance Requirements

- .1 Firestopping performance requirements to be as per the approved ULC or cUL system for the intended application.

3.0 MATERIALS

3.1 Product Selection

- .1 General firestopping products manufactured by Hilti (Canada) Limited. Other major firestopping manufacturers are acceptable as long as the ULC listed firestopping system is properly installed and will suffice to satisfy the latest edition of the BC Building Code.
- .2 Zone pathways for Division 27 – specifically use Hilti CFS-SL GP system. Due to the nature of IT cables and how they are installed and re-installed, UBC IT has expressed a preference for this particular system as it allows the most future flexibility and cost effectiveness while maintaining the most effective fire barrier over time and penetration re-entry, in particular the speed sleeve product preference at this time.
- .3 UBC Project Manager/ Construction Office to coordinate review of the installed firestopping systems with UBC Permits & Inspections for compliance with the approved ULC listing.
- .4 Use low VOC products.
- .5 Use primers whenever recommended by manufacturer.

END OF SECTION