

CITY OF NEW YORK
DEPARTMENT OF BUILDINGS

Pursuant to Administrative Code Section 27-131, the following equipment or material has been found acceptable for use in accordance with the Report of the Material and Equipment Acceptance (MEA) Division.

Patricia J. Lancaster, A.I.A., Commissioner

MEA 154-03-M
Report of Material and Equipment Acceptance Division

Manufacturer – The Rectorseal Corporation, 2601 Spenwick Drive, Houston, Texas 77055.

Trade Name – Metacaulk and Biostop, Composite Sheet.

Product – Fill, Void or Cavity material for fire protection.

Pertinent Code Section(s) – 27-345.

Prescribed Test(s) – RS 5-19 (ASTM E814).

Laboratory – Underwriters Laboratories, Inc.

Test Reports – UL File R14546 dated August 22, 1996, and May 29, 2003.

Description – Fill, Void or Cavity material for thru-penetration in fire rated walls construction. Metacaulk and Biostop, Composite sheet is a rigid fire resistive panel used to seal penetrations and restore the fire rating to floor/ceiling or walls in which a large opening has been made for the passage of penetrating items. It is made of a reinforced, highly intumescent material which is bonded on one side to a galvanized steel sheet. The firestop material shall be applied in accordance with manufacturer instruction and Underwriters Laboratories Inc. system number listed below in achieving the required fire resistance ratings.

Through-penetration Firestop Systems

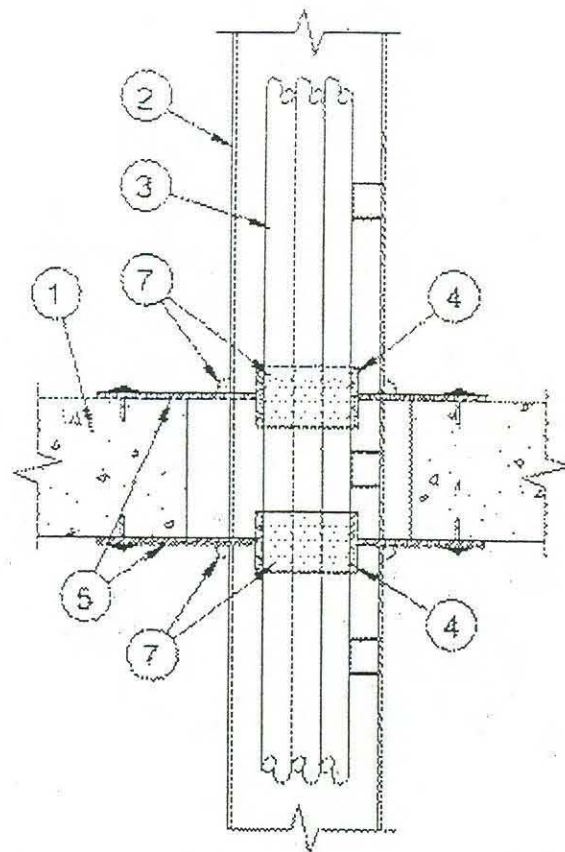
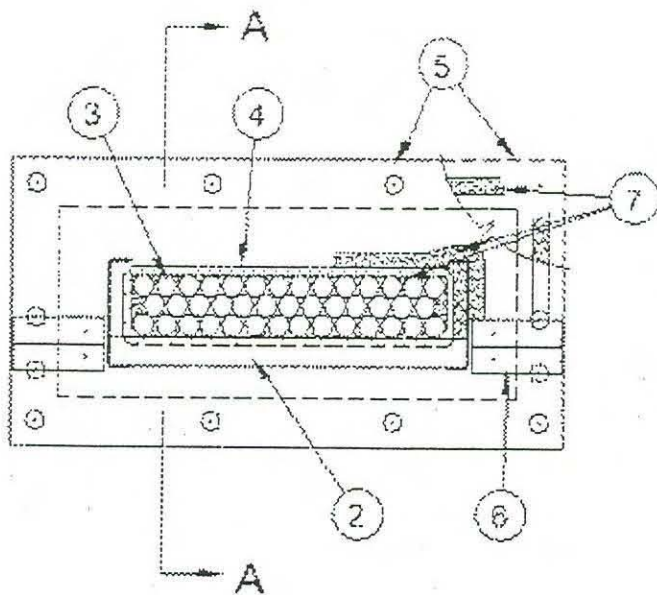
Guide Information

System No. C-AJ-4062

June 18, 2002

F Rating – 2 and 3 Hr (See Item 5)

T Rating – 0 Hr



SECTION A-A

1. **Floor or Wall Assembly** Min 4-1/2 in. thick lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max area of opening 900 sq in. with max dimension of 30 in.

See **Concrete Blocks (CAZT)** category in the Fire Resistance Directory for names of manufacturers.

2. **Cable Tray** Max 24 in. wide by max 4 in. deep steel or aluminum open ladder cable tray. Cable tray to consist of channel-shaped side-rails with boxed channel-rungs spaced 9 in. OC. Cable tray side-rails to be formed of min 0.056 in. thick (16 ga) galv steel or min 0.125 in. thick aluminum. Cable tray rungs to be formed of min 0.029 in. thick (22 ga) galv steel or min 0.080 in. thick aluminum. Min annular space between cable tray and edge of opening is 1 in. supported on both sides of floor or wall assembly.

3. **Cables** Aggregate cross-sectional area of cables in cable tray not to exceed 41 percent of the cross-sectional area of the cable tray based on a max 3 in. cable loading depth within the cable tray. Any combination of the following types and sizes of cables may be used:

A. Max 750 MCM power cables; THHN or THWN jacketed.

B. Max 8C, No.12 AWG multiconductor power and control cables; jacketed.

C. Max 300 pair No. 24 AWG copper conductor communication cable with polyvinyl chloride insulation and jacket material.

D. Multiple fiber optical communication cable jacketed with polyvinyl chloride.

E. Max 25 pr/24 AWG telephone cable with polyethylene insulation and polyvinyl chloride jacket.

4. Fill, Void or Cavity Materials* — Putty Nom 2 in. wide by 1/8 in. putty strips installed to tightly-follow the contour of the cable fill around its entire perimeter within the cable tray. Adjoining lengths of putty strips butt seamed together by hand. One layer of putty required on each side of floor or wall assembly installed to project approx 1 in. beyond each face of the composite sheet (Item 5) on both sides of floor or wall assembly.

RECTORSEAL — Metacaulk Fire Rated Putty

5. Fill, Void or Cavity Materials* Composite Sheet-Rigid aluminum foil-faced intumescent sheet with steel mesh and galv steel sheet backer. Sheets cut to tightly follow the contour of the cable tray and the cable fill. Sheets cut to lap a min of 2 in. on the floor or wall surfaces. When sheet installed on both sides of the floor or wall assembly, F Rating is 3 Hr. As an option for steel cable tray in floors, the sheet may be installed on only the top surface of the floor to attain a max 2 hr F Rating. When sheet is installed on only the top surface of the floor, the putty (Items 4 and 7) is also installed on only the top surface of the floor. Sheet to be installed with the galv steel sheet backer exposed (aluminum foil facing against floor or wall surface) and secured to floor or wall surface with min 3/16 in. diam by 1-1/4 in. long steel anchor screws, in conjunction with min 1-1/4 in. diam steel fender washers. Max spacing of fasteners not to exceed 6 in. with additional fasteners located on each side of butted seams or slits made to permit installation or the sheet around the cable tray.

RECTORSEAL — Metacaulk Composite Sheet

6. **Steel Cover Strip** Min 2 in. wide strip of min 0.021 in. thick (26 ga) galv steel centered over entire length of each butted seam or slit made in the intumescent sheet (Item 5). Prior to installation of the steel strip, the seam or slit in the composite sheet shall be covered with a nom 1/2 by 1/8 in. thick strip of putty (Item 7). Steel cover strip secured to galv steel sheet backer of composite sheet with steel sheet metal screws or steel rivets spaced max 3 in. OC on each side of seam or slit.

7. **Fill, Void or Cavity Materials*** One layer of 1/2 in. wide by 1/8 in. thick putty strips or 1/2 in. wide by 1/16 in. wide joint strip or 1/2 in. diam bead of caulk positioned under composite sheet around entire perimeter of through opening. Generous application of putty to be applied around the base of the contour applied putty strips (Item 4) at their egress from the intumescent sheet on both sides of the floor or wall assembly.

RECTORSEAL — Metacaulk Fire Rated Putty

RECTORSEAL — Metacaulk Joint Strip

RECTORSEAL — Metacaulk 1000

*Bearing the UL Classification Mark

Through-penetration Firestop Systems

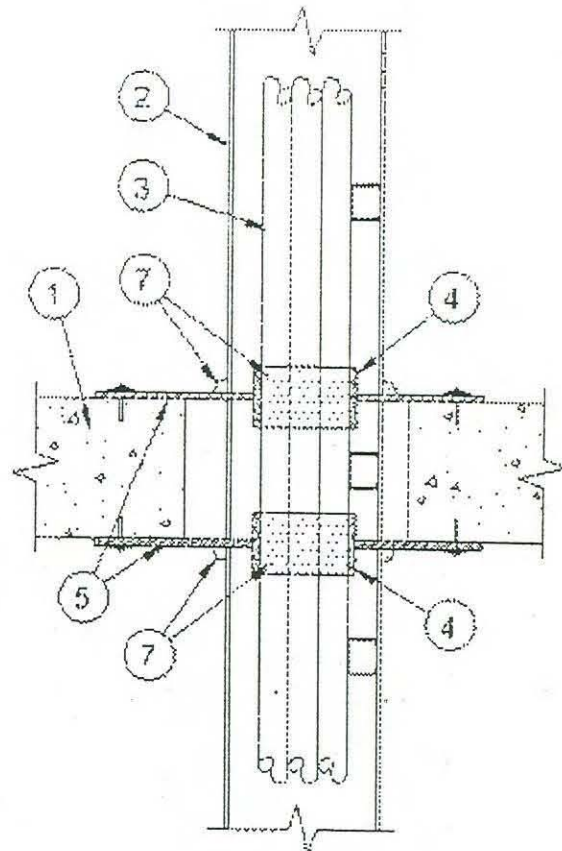
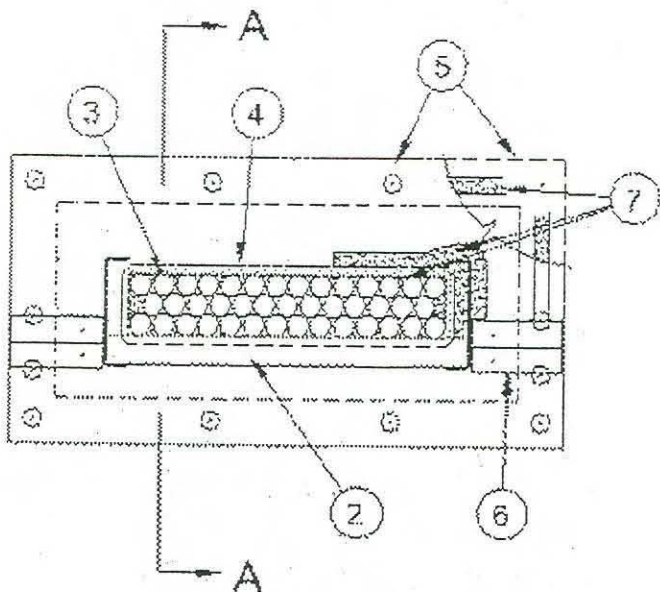
Guide Information

System No. C-AJ-4063

June 18, 2002

F Rating — 2 and 3 Hr (See Item 5)

T Rating — 0 Hr



SECTION A-A

1. **Floor or Wall Assembly** Min 4-1/2 in. thick lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max area of opening 900 sq in. with max dimension of 30 in.

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Cable Tray** Max 24 in. wide by max 4 in. deep steel or aluminum open ladder cable tray. Cable tray to consist of channel-shaped side-rails with boxed channel rungs spaced 9 in. OC. Cable tray side-rails to be formed of min 0.056 in. thick (16 ga) galv steel or min 0.125 in. thick aluminum. Cable tray rungs to be formed of min 0.029 in. thick (22 ga) galv steel or min 0.080 in. thick aluminum. Min annular space between cable tray and edge of opening is 1 in. supported on both sides of floor or wall assembly.

3. **Cables** Aggregate cross-sectional area of cables in cable tray not to exceed 41 percent of the cross-sectional area of the cable tray based on a max 3 in. cable loading depth within the cable tray. Any combination of the following types and sizes of cables may be used:

A. Max 750 MCM power cables; THHN or THWN jacketed.

B. Max 8C, No.12 AWG multiconductor power and control cables jacketed.

C. Max 300 pair No. 24 AWG copper conductor communication cable with polyvinyl chloride insulation and jacket material.

D. Multiple fiber optical communication cable jacketed with polyvinyl chloride.

E. Max 25 pr/24 AWG telephone cable with polyethylene insulation and polyvinyl chloride jacket.

4. **Fill, Void or Cavity Materials*** — **Putty** Nom 2 in. wide by 1/8 in. putty strips installed to tightly-follow the contour of the cable fill around its entire perimeter within the cable tray. Adjoining lengths of putty strips butt seamed together by hand. One layer of putty required on each side of floor or wall assembly installed to project approx 1 in. beyond each face of the composite sheet (Item 5). on both sides of floor or wall assembly.

RECTORSEAL — Biostop Fire Rated Putty

5. **Fill, Void or Cavity Materials*** Composite Sheet-Rigid aluminum foil-faced intumescent sheet with steel mesh and galv steel sheet backer. Sheets cut to tightly follow the contour of the cable tray and the cable fill. Sheets cut to lap a min of 2 in. on the floor or wall surfaces. When sheet installed on both sides of the floor or wall assembly, F Rating is 3 Hr. As an option for steel cable tray in floors, the sheet may be installed on only the top surface of the floor to attain a max 2 hr F Rating. When sheet is installed on only the top surface of the floor, the putty (Items 4 and 7) is also installed on only the top surface of the floor. Sheet to be installed with the galv steel sheet backer exposed (aluminum foil facing against floor or wall surface) and secured to floor or wall surface with min 3/16 in. diam by 1-1/4 in. long steel anchor screws in conjunction with min 1-1/4 in. diam steel fender washers. Max spacing of fasteners not to exceed 6 in. with additional fasteners located on each side of butted seams or slits made to permit installation of the sheet around the cable tray.

RECTORSEAL — Biostop Composite Sheet

6. **Steel Cover Strip** Min 2 in. wide strip of min 0.021 in. thick (26 ga) galv steel centered over entire length of each butted seam or slit made in the intumescent sheet (Item 5). Prior to installation of the steel strip, the seam or slit in the composite sheet shall be covered with a nom 1/2 by 1/8 in. thick strip of putty (Item 7). Steel cover strip secured to galv steel sheet backer of composite sheet with steel sheet metal screws or steel rivets spaced max 3 in. OC on each side of seam or slit.

7. **Fill, Void or Cavity Materials*** One layer of 1/2 in. wide by 1/8 in. thick putty strips or 1/2 in. wide by 1/16 in. wide joint strip or 1/2 in. diam bead of caulk positioned under composite sheet around entire perimeter of through opening. Generous application of putty to be applied around the base of the contour applied putty strips (Item 4) at their egress from the intumescent sheet on both sides of the floor or wall assembly.

RECTORSEAL — Biostop Fire Rated Putty

RECTORSEAL — Biostop Joint Strip

RECTORSEAL — Biostop 500+

*Bearing the UL Classification Mark

Recommendation – That the above described fill, void or cavity material, used to fill the remaining voids in wall assemblies with the above described fire protection rating, where electrical trays, cables, mechanical piping or ductwork pass through the assembly, be accepted for use in such assemblies when installed in accordance with the manufacturer's application instruction. Suitable support angles and fasteners are required for respective assemblies shall be provided in accordance with manufacturer's recommendations. All shipments and deliveries of such materials shall be accompanied by a certificate or label certifying that the materials shipped or delivered are equivalent to those tested and acceptable for use, as provided for in Section 27-131 of the Building Code.

Final Acceptance Sep/24/03

Examined by S DerPridam