

TC_FRD 120-20 (OPL PP 109 P)

Plenum Protection System

Design No. PP 109 P

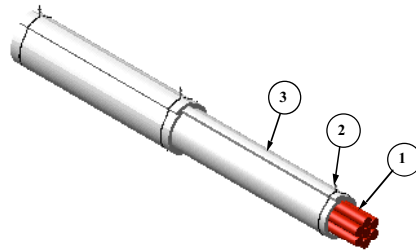
PLENUM PROTECTION SYSTEM

NFPA 262 (UL 910)

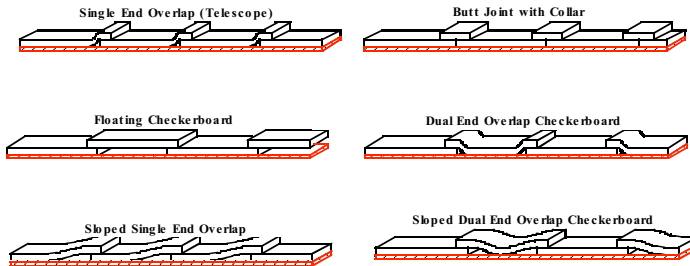
Max. Flame Spread 2.6 ft

Max. Smoke (optical density) 0.03

Average Smoke (optical density) 0.01



Longitudinal Overlap Methods



1. CABLE ASSEMBLY: One or more min. 1/4-in. dia. copper cables sheathed with various compositions including polyvinyl chloride (PVC), chlorinated polyvinyl chloride (CPVC), acrylonitrile butadiene styrene (ABS), polybutylene (PB), polyethylene (PE) polypropylene (PP) and polyvinylidene fluoride (PVDF).
2. FASTENER: Use either wire ties or steel banding to secure each piece of

insulation (3) applied around the pipe assembly (1). When banding is selected, use min. 1/2-inch wide stainless steel bands, which are nominally 0.015-inches thick or 1/2-inch wide carbon steel banding equivalent. The use of filament tape as a temporary hold for the insulation prior to banding to ease installation is permitted. Place the bands a max. 1 in. from each blanket edge. Tension the banding material to hold the insulation

Revised March 7, 2005

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in place without causing any cutting or damage to the blanket. When wire ties are selected, use min. 24 GA steel wire ties. The use of filament tape as a temporary hold for the insulation prior to placing wire ties to ease installation is permitted. Place the wire ties a max. 1 in. from each blanket edge. Tension the wire ties by twisting them together to hold the insulation in place without causing any cutting or damage to the blanket.

3. **INSULATION:** Cover the pipe assembly (1) with a single layer of min. 1/2-in. thick by min. 24-in. wide blanket made of alkaline earth silicate wool refractory fibers or refractory ceramic fibers with a nom. density of 8-pcf. Use blanket fully encapsulated with foil scrim facing. Place one end of the insulation on the pipe assembly (1) and wrap the insulation completely around the pipe assembly (1). Overlap the other end of the insulation a min. of 1-in. around the perimeter. Overlap the next blanket onto the first blanket a min. of 1-in. Overlap adjacent blankets using

one of the following methods: (1) telescoping method where each adjacent blanket has one edge exposed and one edge covered by the next blanket, (2) various checkerboard patterns detailed where both edges of each alternating blanket are covered by each adjacent blanket whose edges are exposed, or (3) a butt splice with collar method where the blankets are butted together and a 2-in. wide collar of blanket is centered over the butt splice overlapping each adjacent blanket 1-in.

Listed Manufacturer:

Thermal Ceramics, Inc. -

Applied Fire Proofing

Insulation Blanket

FireMaster® PlenumWrap™

FireMaster® PlenumWrap+™

4. **TAPE:** Apply pressure sensitive tape with aluminum foil facing to all exposed edges of the insulation (3). Overlap tape onto insulation a min. of 1-in.