Submittal Information for Spears® Manufacturing Company FlameGuard ® CPVC Fire Sprinkler System

GSFG-0221

Date: _____

Job Name: _____ **Location:** _____

Engineer: _____ **Contractor:** _____

Scope:
This submittal covers the Spears® FlameGuard® CPVC Fire Sprinkler System suitable for residential and light hazard occupancies in accordance with The National Fire Protection Association (NFPA). The FlameGuard® System shall be sold as a complete system which consists of pipe, fittings and a specially formulated one-step primerless cement intended for use in wet, dry and pre-action systems in residential and light hazard Applications where the operating temperature/pressure does not exceed 175psi @ 150° F. (1.2 MPa @ 66° C)

Product Specification:
All CPVC fire sprinkler fittings and pipe shall be Spears® FlameGuard®. All solvent cement shall be Spears® FS-5 One-Step, and all thread sealant shall be Spears® Blue 75™ as produced by Spears® Manufacturing Company.

All Spears® FlameGuard® CPVC fire sprinkler fittings shall be manufactured in the U.S.A. from a Chlorinated Polyvinyl Chloride (CPVC) compound having a minimum cell classification of 23447 in accordance with ASTM D1784. Fittings shall be manufactured in strict compliance to ASTM F438 or F439, as applicable. All CPVC fire sprinkler piping shall be manufactured in the U.S.A. from a Chlorinated Polyvinyl Chloride (CPVC) compound having a minimum cell classification of 23447 in accordance with ASTM D1784. Piping shall be manufactured in strict compliance to ASTM F442. All CPVC solvent cement shall be a primerless, one-step type manufactured in strict compliance to ASTM F493 and approved for use with CPVC fire sprinkler systems. All CPVC fire sprinkler fittings, pipe and solvent cement shall be listed by Underwriters Laboratories (UL®), Underwriters Laboratories Canada (ULC®) and/or Factory Mutual Research Corporation (FM Global) and/or LPCB for use in residential and light hazard wet, dry and pre-action systems and bear their authorized certification marks. Thread sealant shall be approved by the fitting manufacturer for use with CPVC fire sprinkler products. All CPVC fittings, pipe, solvent cement and thread sealant shall be certified by NSF International as applicable. Pipe and solvent cement shall be certified to UL 2818 GREENGUARD GOLD.

Product Marking:
FlameGuard® system components shall be orange in color for identification and include required markings and approvals prescribed in ASTM F442 for pipe and ASTM F438 or F439 for fittings. Pipe and cement shall have GREENGUARD GOLD marking.

Installation:
Spears® FlameGuard® CPVC Fire Sprinkler System shall carry a working pressure of 175 psi @ 150F (1.2 MPa @ 66° C) and shall be installed in accordance with Spears® Manufacturing Company FlameGuard® CPVC Fire Sprinkler Products Installation Instructions (FG-3) and Addendums. National Fire Protection Association (NFPA) Standards 13, 13D, and 13R must be referenced for design and installation requirements in conjunction with the Installation Instructions and applicable local codes. Installation practices such as pipe support spacing, bracing, allowance for thermal expansion/contraction, solvent cementing and handling and storage shall be in accordance with the manufacturer's instructions and this specification. Buried pipe shall be in accordance with NFPA 24 for supply mains. The piping system shall be joined using a chemically resistant one-step primerless solvent cement joining process conforming to ASTM F493. The system shall be protected from ultra violet (UV) light exposure from the sun or other source and protected from any chemicals that are not compatible with the CPVC materials including but not limited to fire stopping materials, plasticizers, incompatible thread sealants, etc.

NOTE: FlameGuard® CPVC piping systems can be leak tested using oil-free compressed air up to 25psi but must also be hydrostatically tested as required per NPFA standard.

Referenced Standards:
ASTM D1784 – Rigid Vinyl Compounds
ASTM F438 – CPVC Schedule 40 Fittings
ASTM F439 – CPVC Schedule 80 Fittings
ASTM F442 – CPVC SDR Pipe
ASTM F493 – Solvent Cements for CPVC Pipe & Fittings
NFPA 13, 13D, 13R – National Fire Protection Association Standards
NFPA 24 – Installation – Private Fire Service Mains
NSF International Standard 14/61 – Potable Water

Approvals:
NSF® – NSF International Standard 14/61 – Potable Water
Underwriters Laboratories – Listing Agency
FM Global –Listing Agency
UL-GREENGUARD GOLD Certified UL 2818
LPCB – Loss Prevention Council Board