# **Engineering Specification**

Job Name	Contractor Signature
Orion Representative	Approval Date
Quantity Required	Contractor's P.O. No.

# **Orion Chemical Waste Piping System: Polypropylene Schedule 80**

# Pipe:

### Flame Retardant Blueline Schedule 80

Orion's Blueline acid waste pipe will be manufactured to the dimensions and tolerances of ASTM F1412 from fire retardant material in 10 ft lengths. Pipe will be cylindrical and straight. Pipe will be supplied with factory grooves. The polypropylene material will conform to ASTM D4101.

#### Non-Flame Retardant Brownline Schedule 80

Orion's Brownline acid waste pipe will be manufactured to the dimensions and tolerances of ASTM F1412 from non-flame retardant material in 10 ft lengths. Pipe will be cylindrical and straight. Pipe will be factory grooved. The polypropylene material will conform to ASTM D4101.

# Fittings:

Orion's Blueline acid waste fittings will be manufactured to schedule 40 dimensions per ASTM F1412 and will be made of fire retardant polypropylene. Fitting layouts will conform to ASTM D3311 and ASTM F1412. The polypropylene material will conform to ASTM D4101.

# **Joining Methods**

#### No-Hub Mechanical Joint:

Pipe and fittings will be joined using the No-Hub method, utilizing all plain end factory grooved fittings joined with Orion's No-Hub couplings. Each No-Hub coupling will have an outer band of 300 series stainless steel with 5/16" bolts, nuts and washers plated to meet a 100-hour salt spray test per ASTM B117. The No-Hub joint will conform to the requirements of ASTM F1412.

### Rionfuse CF (Clamp-Free) Electrofusion:

The Orion Rionfuse CF system will utilize the same plain end fittings as the No-Hub system, but are to be joined using the Rionfuse CF couplings. The Rionfuse machine will be used to produce a hermetically sealed joint. The joints will conform to ASTM 1290, Technique 1.

### Socket Fusion:

All fittings are to be socket end. All joints are to be made with Orion's heat tools to produce a hermetically sealed joint. Joints and joining procedures will conform to ASTM 2657, Technique 1.

#### **NOTICE**

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

Orion Fittings product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Orion Fittings Technical Service. Orion Fittings reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Orion Fittings products previously or subsequently sold.



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