

## Pipe:

### Flame Retardant Blueline® Schedule 40

Orion's **Blueline®** acid waste pipe will be manufactured to the dimensions and tolerances of ASTM F1412 from fire retardant material in 10' 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 40

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

## Fittings

Orion **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 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 fittings joined with Orion's **No Hub** Couplings. All couplings to have a chemical resistance equal to the pipe and fittings. 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 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 I.

### 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 I



JobName: \_\_\_\_\_

Engineer \_\_\_\_\_

JobLocation: \_\_\_\_\_

Contractor: \_\_\_\_\_

Representative: \_\_\_\_\_

**Polypropylene Schedule 80**

Pipe: \_\_\_\_\_

**Flame Retardant Blue Line Schedule 80 ®**

Orion’s blue line acid waste pipe will be manufactured to the dimensions and tolerances of ASTM F1412 from fire retardant material in 10' lengths. Pipe will be cylindrical and straight. Pipe will be factory grooved. The polypropylene material will conform to ASTM D4101.

**Non Flame Retardant Brown Line Schedule 80 ®**

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

**Fittings**

Orion’s blue line 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 F1412. The polypropylene material will conform to ASTM D4101.

Joining Methods: \_\_\_\_\_

**No-Hub/Plain End ®**

Pipe and fittings will be joined using the Riontite No-Hub/Plain End, having a chemical resistance equal to the pipe and fittings. Each Riontite 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 per ASTM B117. The No-Hub/Plain End 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 I.

**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 I.



JobName: \_\_\_\_\_

Engineer \_\_\_\_\_

JobLocation: \_\_\_\_\_

Contractor: \_\_\_\_\_

Representative: \_\_\_\_\_

Polypropylene Blackline

Pipe:

Non Flame Retardant Blackline Pipe Sch 40

Orion's blackline acid waste pipe will be manufactured to the dimensions and tolerances of ASTM F1412 from non-flame retardant material in 10' lengths. Pipe will be cylindrical and straight. The polypropylene material will conform to ASTM D4101 and manufactured to Schedule 40 wall thickness.

Non Flame Retardant Blackline Pipe Sch 80

Orion's blackline acid waste pipe will be manufactured to the dimensions and tolerances of ASTM F1412 from non-flame retardant material in 10' lengths. Pipe will be cylindrical and straight. The polypropylene material will conform to ASTM D4101 and manufactured to Schedule 80 wall thickness.



JobName: \_\_\_\_\_

Engineer \_\_\_\_\_

JobLocation: \_\_\_\_\_

Contractor: \_\_\_\_\_

Representative: \_\_\_\_\_