

## **ORION Acid Waste Specification: Polypropylene Schedule 40**

### **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 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 40:** Orion's Brownline® acid waste pipe will be manufactured to the dimensions and tolerances of ASTM F1412 from non 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.

### **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 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.