



SIMTECH GUIDE SPECIFICATION
INDUSTRIAL KYNAR 740 - POLYVINYLIDENE FLUORIDE PIPING
SYSTEM (PVDF)

1.0 PIPE

1.1 Material

Pipe shall be extruded from virgin, pure, unpigmented homopolymer KYNAR 740 resin, as manufactured by ARKEMA Chemicals, Inc. Material shall meet or exceed requirements of Table 1 of ASTM D-3222. Pipe manufacturing shall not employ any stabilizers, antioxidants, fillers, pigmentation or additives of any kind. Kynar homopolymer resins may be safely used in articles for repeated contact with food per Title 21, Code of Federal Regulations, Chapter 1, part 177.2510. Kynar homopolymer resin grades have been listed with NSF under Standard 61, Standard 51 and Standard 14

1.2 Flammability

KYNAR 740 homopolymer resins meet both the Factor Mutual 4910 (FM 4910) and corresponding UL 2360 burn test criteria. Specification test reports available upon request.

1.3 Stress Relieved

Pipe shall be stress relieved by post-extrusion annealing to eliminate inherent stresses in the pipe wall created by the extrusion process.

1.4 Pressure Rating

System (pipe and fittings) shall be pressure rated in accordance with ASTM D-2837. Pipe shall be manufactured to an SDR (standard dimension ratio) in order to provide the same pressure rating in all diameters. Pipe shall be (select one):

SDR 21	=	232 PSI (PN16)
SDR 33	=	150 PSI (PN10)

PN = Nominal Pressure Rating in Bar

1.5 Dimensions and Tolerances

All pipe and fittings shall comply with the dimensions and tolerances outlined in ASTM D-3261. Pipe shall have a 2.5 safety factor for a 50-year life. Pipe shall be furnished in 5-meter (16.4 ft) length.

2.0 FITTINGS

2.1 Material

See material under PIPE section 1.0

2.1 Pressure Fittings

All pressure pattern fittings (elbows, tees, flanges and reducers) from ½" (20 mm) through



12" (315 mm) shall be injection molded and shall have the same pressure rating as the pipe. Fittings shall not contain any stabilizer, antioxidants, fillers, pigmentation or additives of any kind. All fittings shall have a 2.5 safety factor for a 50-year life.

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2.2 Drainage Pattern Fittings

Drain fittings (wyes, laterals, sanitary tees) may be fabricated by mitering and butt fusion welding or by side-wall fusion techniques. Extrusion welding is permitted. Hot air welding is not acceptable. Wall thickness of fabricated fitting shall be the same as the pipe.

3.0 JOINING

3.1 Welding Method

All pressure fitting ½" (20 mm) through 2" (63 mm) shall be socket fusion type joints. Pressure fittings, drainage pattern fittings and pipe 2½" (75mm) and larger shall be joined by butt fusion welding. All fusion-welded joints to be performed in accordance with ASTM D-2657 and piping manufacturers recommendations.

3.2 Welding Certification and Training

Training and certification shall be conducted by a direct Simtech employee. Each welder will be fully trained on the welding equipment for the particular project and will be required to demonstrate the full process of welding. The process includes set up of the tool, loading of the pipe and/or fittings, alignment of the tool, and the weld process. Training will also include minor maintenance techniques to keep tools in ideal operating conditions. After an operator has demonstrated their ability to operate the equipment, Simtech will issue a certified welders card upon completion.

4.0 MANUFACTURER

SIMTECH
877-777-2467
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