



**CHEMLINE**  
Plastics Limited

**PVDF  
Piping  
Systems**

*Manufactured by:*



## PVDF PIPING SYSTEMS FOR HIGH PURITY OR CHEMICAL APPLICATIONS

Chemline Plastics is the exclusive Canadian stocking representative for AGRU PVDF and PP pipe and fittings.

For more than 30 years AGRU has produced high quality pipe, fittings and semi-finished products of thermoplastics.

### A thermoplastic material for the future

In order to meet the high standards required for thermoplastics in engineered equipment and piping systems, high grade materials have been developed. PVDF (polyvinylidene fluoride) is a thermoplastic which is distinguished from other fluorinated polymers by the ease with which it can be applied and fabricated.

PVDF is recognized by its high mechanical strength and excellent chemical resistance even at elevated temperatures. PVDF is a homopolymer without additives such as stabilizers and colourings.

### Quality – a serious commitment

Reliability of the installed product is guaranteed due to extensive quality assurance systems. All stages of the manufacturing process are controlled and routinely audited by independent agencies.

### A complete package

Chemline offers a complete PVDF package including pipe, fittings, valves, flow meters and controls along with state of the art infrared butt fusion equipment for purchase or rental. Our engineers are available for technical assistance from the design through installation stages of your project.

### Many application areas

Due to its special properties PVDF is suitable for many applications, especially where requirements include high chemical resistance:

- high purity
- high working temperatures/ pressures
- high impact strength at low temperatures
- high abrasion resistance

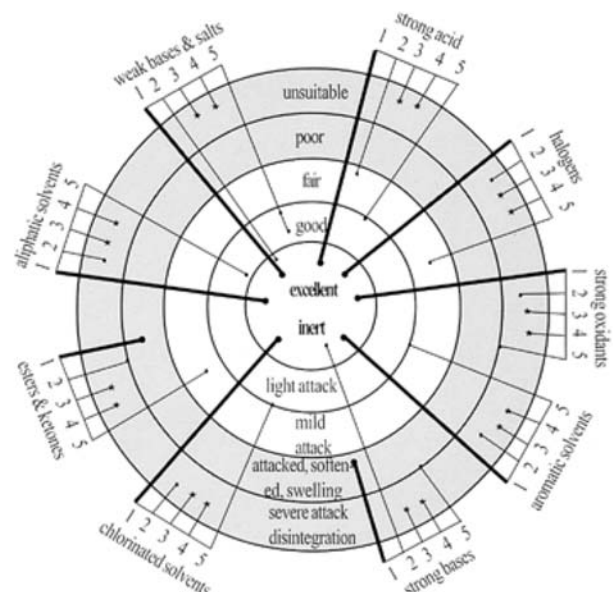
### Typical applications are:

- equipment for the food, beverage and pharmaceutical industries
- process equipment for the chemical, pulp and paper, mining, steel, and finishing industries.
- high-purity water systems for the semi-conductor industry
- environmental equipment

### Chemical resistance

Chemical resistance of PVDF at 95°C in comparison with other plastics:

- 1 PVDF Polyvinylidene Fluoride
- 2 PP Polypropylene
- 3 CPVC Chlorinated Polyvinyl Chloride
- 4 PVC Polyvinyl Chloride
- 5 Polyester (glass fiber reinforced)



### Properties of PVDF

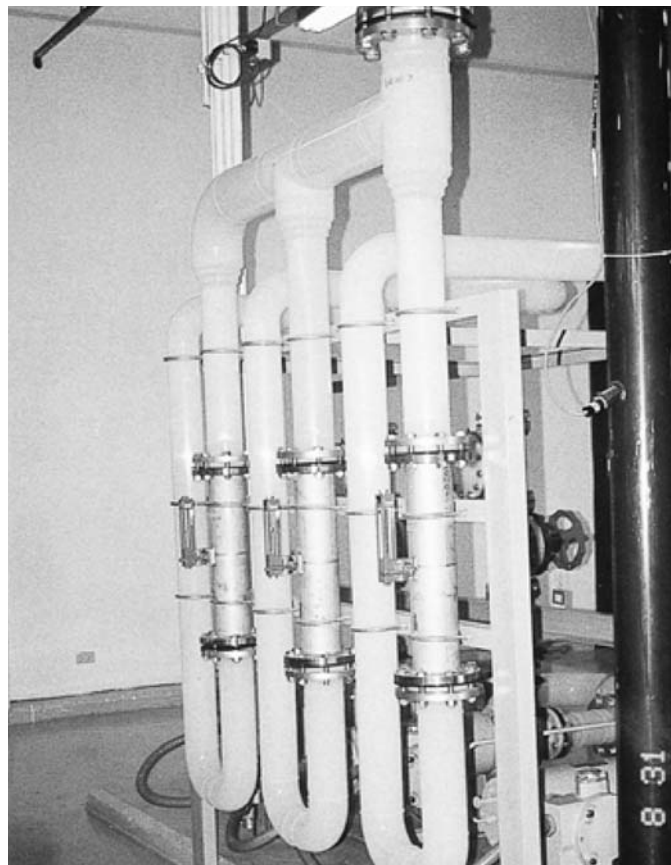
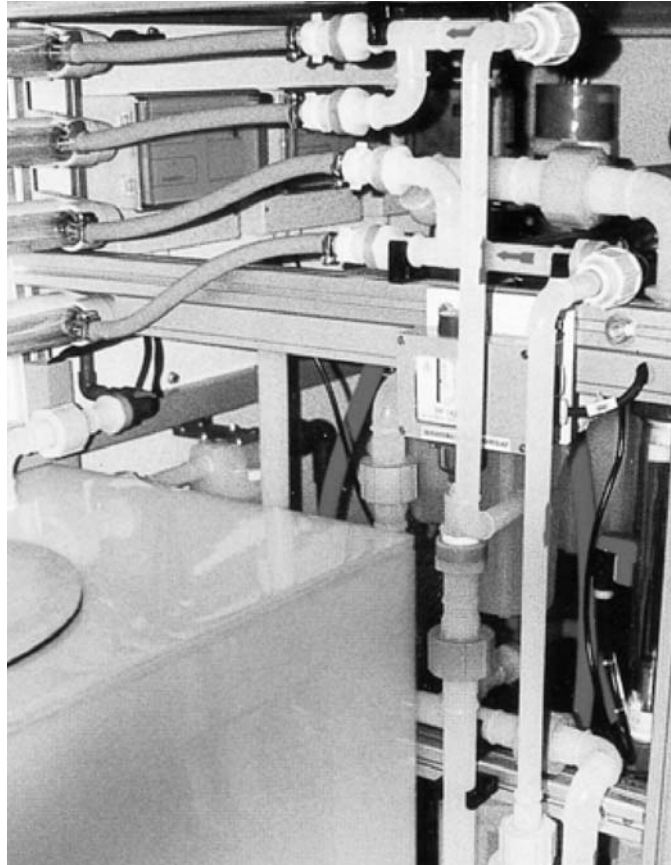
- wide temperature range: -40°C up to maximum 140°C . short-term, sustained operating temperature: 95°C.
- self-extinguishing according to UL 94-VO
- excellent mechanical properties, i.e. high tensile and high impact strength
- light weight
- easily fabricated
- excellent insulating and electrical properties
- excellent abrasion resistance and weathering resistance
- low coefficient of friction
- excellent chemical resistance, especially with acids and solvents, even at high temperatures
- low permeability
- radiation resistant up to 200M-rad
- non-toxic, food (FDA) approved
- PVDF pipe may be connected to metal pipe with standard fittings

### Everything from one source

Due to its comprehensive product range, Chemline is able to supply complete PVDF piping systems.

Chemline offers High Purity PVDF pipe and fittings for deionized water and high purity chemicals.

For more information contact Chemline Plastics.



### PRODUCT RANGE

#### PIPE

1/2" - 12" dia. (20 - 315mm)  
150 - 300 psi (PN 10, 16, 20)  
Standard lengths: 5m (16.5 ft.)

#### MOULDED FITTINGS FOR BUTT WELDING

150 - 235 psi (PN 10, 16)

Bends 90° 1/2" - 12" (20 - 315mm)

Elbows 45° 1/2" - 6" (20 - 160mm)

Tees 1/2" - 12" (20 - 315mm)

End Caps 1/2" - 9" (20 - 225mm)

#### Reducers

concentric 1/2" - 12" (20 - 315mm)

#### Reducers

concentric with extended legs  
1/2" - 12" (20 - 315mm)

#### Stub Flanges

1/2" - 12" (20 - 315mm)

#### PP Backing Rings with steel inserts

1/2" - 12" ANSI 150 and 20 - 315mm, PN 10 (DIN)

#### MOULDED FITTINGS FOR SOCKET WELDING

Available on request.

#### FABRICATED FITTINGS

For sizes larger than moulded fittings – available on request.

#### VALVES, ETC.

A complete range of PVDF valves, flow meters and controls are available with butt fusion ends up to 6" (150mm) or flanged up to 24" (600mm) for high purity or chemical applications.

#### FUSION MACHINES

State of the art infrared butt fusion machines are available for purchase or rental.

Exclusive Canadian Representative:

 **CHEMLINE**  
Plastics Limited

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