

Material Processing for Better Results

All PTFE Seats are not Created Equal

All Cam-Line seats are reinforced PTFE. The finished reinforced seats, when compared to virgin PTFE, exhibit the following performance advantages:

1. Improved dimensional stability
2. More uniform quality
3. Improved sealing characteristics

These properties, obtained through the reinforcing process, result in better sealing and longer seat life. Cam-Line reinforced PTFE seats, combined with the unique beveled edge ball design, result in superior shut-off performance.

Plastic Lining

All wetted parts of the Cam-Line are lined with plastic. Cam-Line linings are injection molded at high pressure. With injection molding we actually “build” a corrosion resistant plastic valve within the strong metal valve body. With injection molding, wall thickness can be varied to suit the mechanical requirements of the various valve sections, while minimum wall thickness is strictly controlled. In fact, all Cam-Line linings have a 3/16" minimum wall thickness. Cam-Line linings are “keyed” to the valve bore for extra stability. The one piece trunnion/ball of the Cam-Line is fully encapsulated with the plastic lining. The metal core is recessed and keyed to lock the lining in place. With the one-piece trunnion/ball design, the joint between the ball and stem as found in conventional lined ball valves is completely eliminated. You can be sure that the ball is in the position indicated by the top of the trunnion.

Experience Counts

Injection molding of plastic linings is not new to Engineered Valves Group (EVG). Initially introduced with its diaphragm valve product line, EVG has been molding plastic lined valves for the past fifty years. This experience and expertise led to the development of the patented “Boteler” method of injection molding valve linings in 1968. Over the years, thousands upon thousands of ball valves and diaphragm valves have been lined using this time proven method.



Testing

Every valve is tested prior to shipment. Both hydrostatic and seat tests (in accordance with MSS-SP-72) are performed to insure a high integrity, tight sealing valve. In addition, all plastic lined components are 100% spark tested prior to assembly to assure lining integrity.

TEFZEL® Lining

TEFZEL® can best be described as a rugged thermoplastic with an outstanding balance of properties. TEFZEL® can perform successfully in applications where other materials are lacking in mechanical toughness, broad thermal capability, and the ability to meet severe environmental conditions.

Chemically, TEFZEL® is a co-polymer of ethylene and tetrafluoroethylene. Mechanically, TEFZEL® is tough, exhibits high tensile strength and hardness, and is more creep resistant than Teflon® PTFE, FEP or PFA fluorocarbon resins. The TEFZEL® used in the Cam-Line is reinforced with glass, yielding a tensile strength approaching 12,000 PSI. TEFZEL® has outstanding resistance to attack by chemicals and solvents that often cause rapid deterioration of other plastic materials. TEFZEL® is inert to strong mineral acids, inorganic bases, halogens, and metal salt solutions. Carboxylic acids, anhydrides, aromatic and aliphatic hydrocarbons, alcohols, aldehydes, ketones, ethers, chlorocarbons, and classic polymer solvents have little effect on the material.