

# Seat Options for Ball Valves

Please contact QSM for your seat material selection for specific applications. These are guidelines, and customers are responsible for compatibility with specific applications. Please note that there are other materials located in the valve that need to be taken into consideration such as O-rings, gaskets, and stem seals. These items will also be affected by higher pressures and temperatures. Please reference QSM's pressure/temperature chart when selecting the correct valve and seal material. Thermal expansion (ammonia, water/steam, chlorine, etc.) in applications may also require vented balls to improve seat durability. Rating for low and high temperature are for transient use only and not continual operation. Room temperature is defined as 72 degrees F.

Under no circumstances will QSM, Tru-Flo Valves & Automation, or its affiliates, partners, or suppliers be liable for any direct, indirect, incidental or consequential damages resulting from the use of this information.

## PTFE (100% Virgin Polytetrafluoroethylene)

PTFE is a thermoplastic fluoropolymer that consists of carbon and fluorine. This structure allows PTFE to be non-reactive to many chemicals and applied to severe chemical environments. PTFE is ideal for low cycle life applications. Do not use in molten alkali metal and molten fluorine applications.

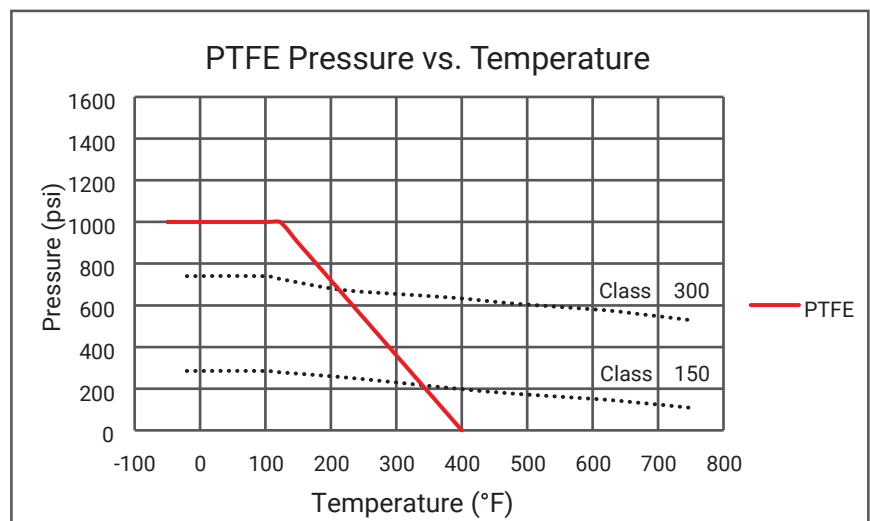
**Temperature Range:** -50°F to 400°F

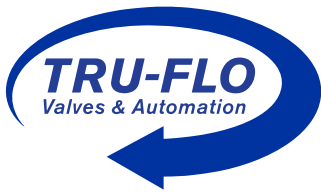
**Max Pressure at Room Temperature:** 1000 psi

**Color:** White

**Available For:** Sanitary Valves

•EA-33NF-SN-CV (cavity filled)





# Seat Options for Ball Valves

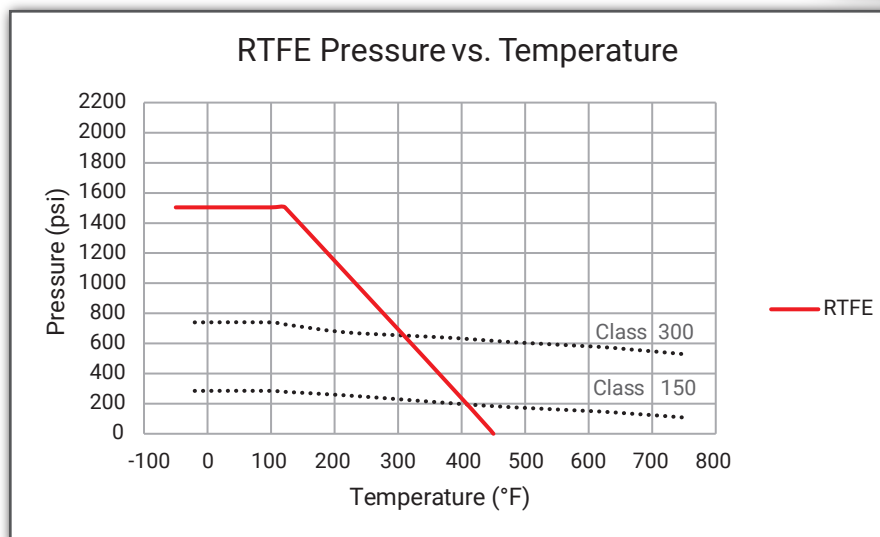
## RTFE (Reinforced Teflon®: 85% PTFE, 15% Glass Fiber)

RTFE has improved wear and abrasion resistance over PTFE while maintaining its chemical compatibility. Its versatile temperature characteristics allow RTFE to be used in saturated steam applications. RTFE is the standard seat material for Tru-Flo industrial ball valves. This seat should not be used in caustic (sodium hydroxide, potassium hydroxide, etc.) service.

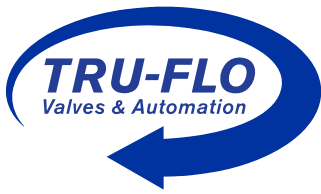
Temperature Range: -50°F to 450°F  
Max Pressure at Room Temperature: 1450 psi  
Color: Off-White

**Available For:**  
Industrial Valves

- EA-33NF-SE, SW, BW (non-cavity filled)
- EA-102A-SE
- EA-207A-SE
- EA-402A-FE
- EA-36-10-SE, SW, BW
- EA-38-10-SE







# Seat Options for Ball Valves

## 50/50 (50% SST Powder, 50% PTFE by weight)

50/50 has improved temperature resistant properties over PTFE and RTFE, as well as improved abrasion resistance and a higher density. 50/50 seats are often used in saturated steam applications because of these characteristics. 50/50 seats are the standard in our V-ball valves.

**Temperature Range:** -20°F to 550°F

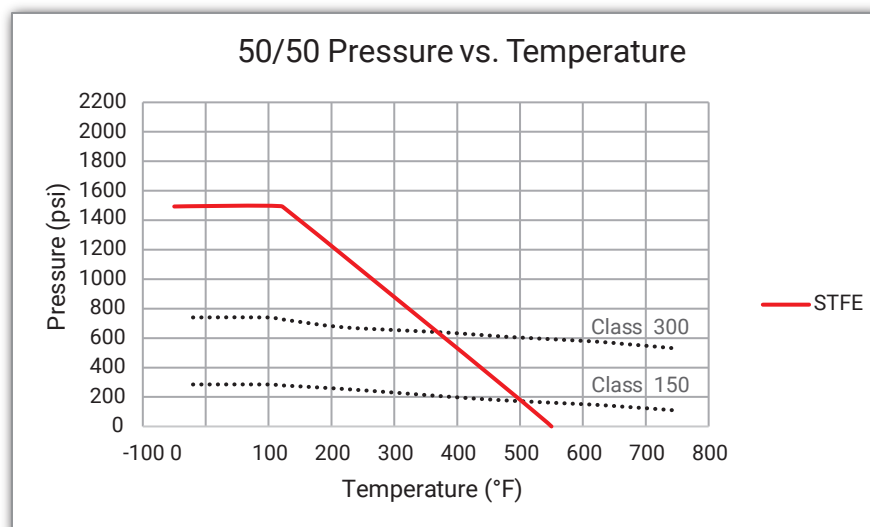
**Max Pressure at Room Temperature:** 1600 psi

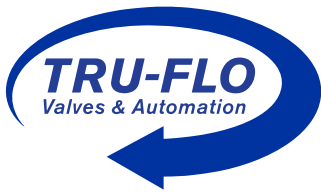
**Color:** Dark Gray

### Available For:

Industrial and Sanitary Valves

- EA-33NF-SN, SE, SW, BW
- EA-36-10-SE, SW, BW
- EA-402A-FE





# Seat Options for Ball Valves

## TFM1600

TFM1600 is second generation PTFE. TFM1600 has a lower coefficient of friction that provides better creep resistance than PTFE. TFM1600 is ideal for high purity applications such as semi-conductor and also in lower temperature applications. TFM1600 resists “popcorning” in monomer and polymer services, such as butadiene because of its lower porosity and permeability compared to PTFE. TFM1600 is FDA 21 CFR 177.1550 and 3A compliant.

**Temperature Range:** -50°F to 500°F

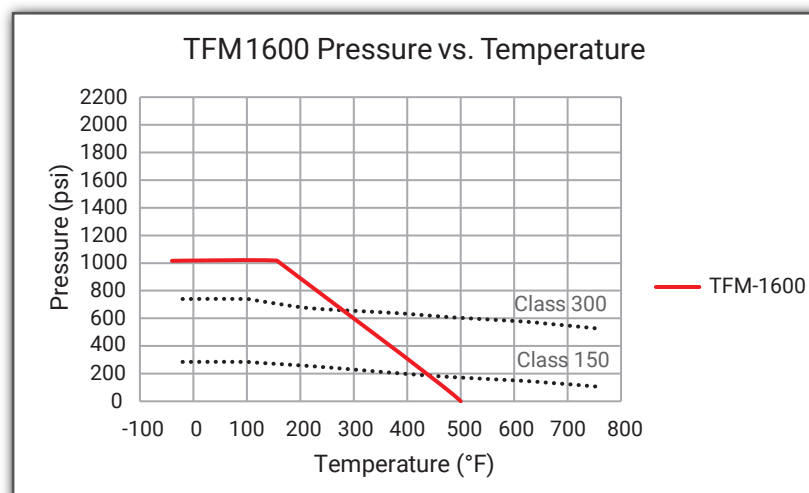
**Max Pressure at Room Temperature:** 1000 psi

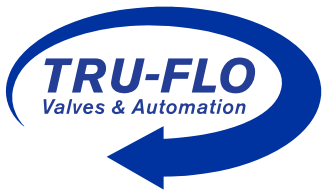
**Color:** Transparent White

**Available For:**

Sanitary Valves

•EA-33NF-SN (non-cavity filled)





# Seat Options for Ball Valves

## PEEK (Polyether Ether Ketone)

PEEK has good chemical resistance, and also high temperature tolerance. Ideal for high pressure applications. Other thermoplastics should be used for low pressure applications. Use of PEEK seats require the use of a 174 PH® steam. Do not use in applications prone to thermal shock, or in chlorine and sulfuric acid applications.

**Temperature Range:** 0°F to 550°F

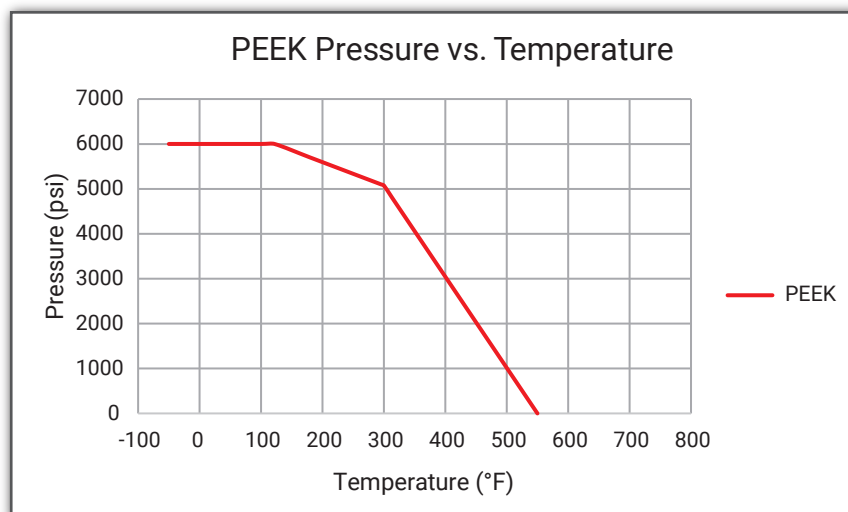
**Max Pressure at Room Temperature:** 6000 psi

**Color:** Beige

### Available For:

Industrial and Sanitary Valves

•EA-33NF-SN, SE, SW, BW





# Seat Options for Ball Valves

## Delrin® (DuPont™ Polyoxymethylene)

Delrin® has decent chemical resistance, and is ideal for high pressure characteristics. Do not use in oxygen service.

**Temperature Range:** -40°F to 180°F

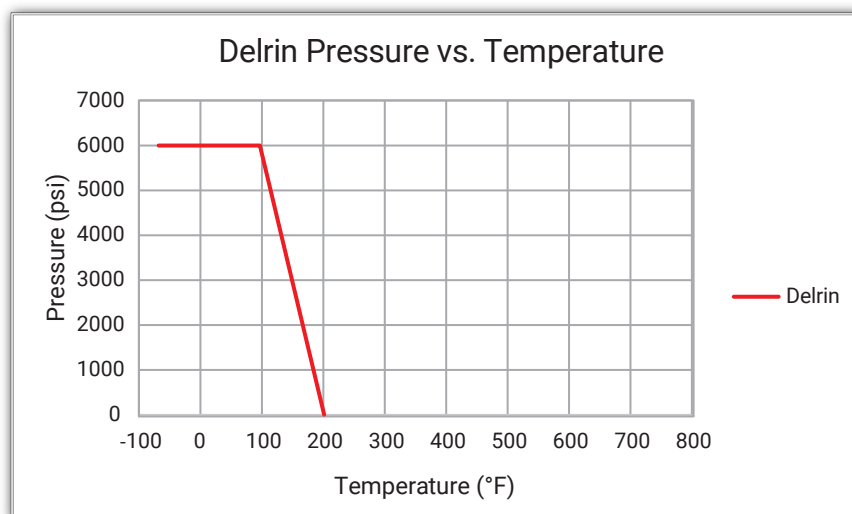
**Max Pressure at Room Temperature:** 6000 psi

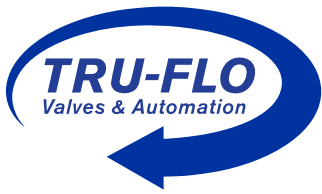
**Color:** White

### Available For:

Industrial and Sanitary Valves

•EA-33NF-SN, SE, SW, BW





# Seat Options for Ball Valves

## Accrolon®

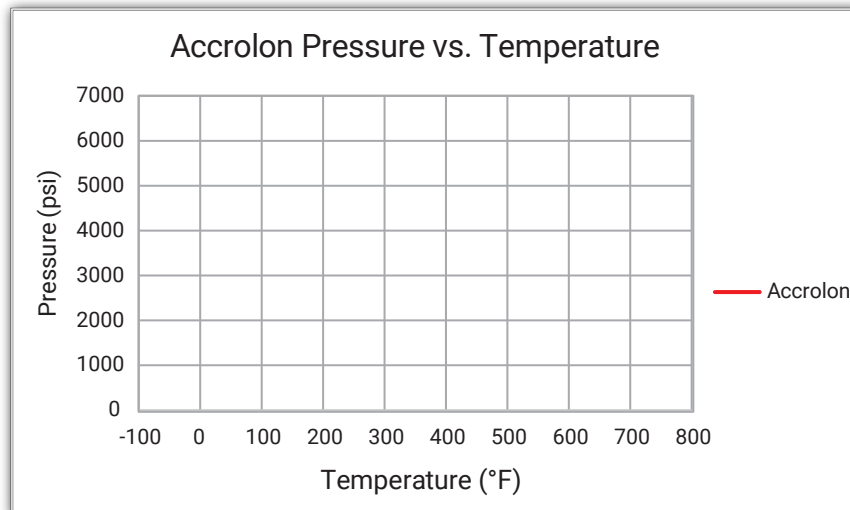
Accrolon®

**Temperature Range:** -50°F to 500°F Max

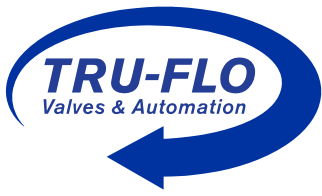
**Pressure at Room Temperature:**

**Color:** White

**Available For:**







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TRU-FLO MADE BY QSM