FLOW-TEK TECHNICAL BULLETIN NO. 1001
SEAT MATERIALS - TEK-FIL®

DESCRIPTION

Tek-Fil® is a seat material developed by Flow-Tek that includes Dyneon TFM™ resin. To further enhance the properties and features of Dyneon TFM resin, Tek-Fil® is filled with special carbon/graphite fillers. Dyneon TFM resin is a second generation modified polytetrafluoroethylene (PTFE). It maintains the exceptional chemical and heat resistance properties that made the first generation PTFE a primary choice for resilient ball valve seats. With Tek-Fil® maintaining the proven characteristics of PTFE and the added features of TFM, Tek-Fil® is an excellent choice for many applications.

Tek-Fil® seats used on the appropriate valve offer new opportunities in applications such as steam, thermal fluids, mild abrasive conditions as encountered in flow control, monomers such as styrene and butadiene which can polymerize and “popcorn” standard PTFE seats, and rapid, high cycle services.

ADVANTAGES OF TEK-FIL® OVER PTFE

- Lower coefficient of friction for lower valve torque ratings
- Denser polymer structure (lower porosity)
- Reduced permeability
- Superior abrasion and wear resistance for longer life in dirty services
- Reduced cold flow (increased resistance to deformation)
- Enhanced deformation recovery (compressive strength)
- Increased pressure recovery (compression stress relaxation)

OTHER ADVANTAGES OF TEK-FIL®

- The proprietary fillers increase the operating range of Flow-Tek valves
- Temperature range up to 650°F for on/off valves in clean service conditions such as thermal fluids
- Temperature range up to 550°F for modulating valves and valves in normal or dirty service conditions
- Saturated steam rating to 425 psi
- Lower operating torques
- Extended cycle life expectancy
- Maintains the same excellent chemical resistance and thermal stability as conventional carbon-graphite filled PTFE
- Does not affect the fire safe capability of our fire rated valves

TEMPERATURE RANGE

-328°F to 650°F

COLOR

Black