



## Extreme Steam Service Vee Packing

Hi-Tech Seals' new compound, XS65, thrives in application environments that most thermoplastics would not. XS65 maintains excellent sealing properties for temperatures up to 343°C/650°F and pressures up to 10,000 psi. It is capable of short term excursions to 357°C/675°F. It performs well in the presence of steam and well bore fluids, even over long periods of exposure. XS65 is suited for both dynamic and static applications and resists swelling in severe chemical conditions.

In cases where steam is involved, XS65 improves reliability, increases safety, extends service life, and can reduce maintenance costs. This is possible due to XS65's remarkable properties:

- HPHT (High Pressure, High Temperature)
- High Tensile, Flexural, and Compressive Strength
- Low Degree of Cold Flow
- Low CLTE
- Low Coefficient of Friction
- High Creep Resistance
- Good Wear Properties
- High Dimensional Stability

### Common Applications & Products:

- Completion & Production Components
- BOP Components
- Valve Seals
- Rod & Piston Seals
- Vee Packing
- Debris Barrier Seals
- Steam Expansion Joints

### Chemical Performance:

Hi-Tech Seals' XS65 is universally chemical resistant including, but not limited to:

- Steam
- Strong Acids
- Alkalis
- Hydrocarbons
- Fuels
- Corrosion Inhibitors
- Sour Gas
- Oil Well Bore Fluids
- Mixed Process Streams
  - Hot Aromatics
  - Oil Heat Transfer Fluids
  - Amines & Corrosive Acids



Properties	ASTM	Results
Hardness, Rockwell	D785	46M
Hardness, Shore D	D2240	76D
Tensile Strength @24°C, psi	D638	3,200
Tensile Strength @204°C, psi	D638	2,050
Tensile Strength @299°C, psi	D638	1,086
Tensile Modulus @ 24°C, psi	D638	348,600
Tensile Modulus @ 204°C, psi	D638	24,600
Compressive Strength, psi	D695	8,775
Flexural Strength, psi	D790	5,820
Flexural Modulus, psi	D790	590,000
Tensile Elongation (Strain at yield), %	D638	22
Tensile Elongation (Strain at rupture), %	D638	58
Impact Strength, Notched, @23°C, ft-lbs/in	D256	No Break
Specific Gravity	D792	2.28
Heat Deflection Temperature, °C	D648	229
Coefficient of Linear Thermal Expansion, in/in/ °F	E831	2.7 x 10 <sup>-6</sup>
Thermal Conductivity, Btu-in/hr-ft <sup>2</sup> -°F	C518	4.7
Water Absorption, 24 hrs @ 24°C, %	D570	0.08
Water Absorption, Saturation @ 24°C, %	D570	0.015

### Notes:

Values are typical for compression. Chemical resistance 149°C for 30 days:

1. Ammonium Hydroxide 35% = No Change
2. Hydrochloric Acid 37% = No Change
3. Hydrofluoric Acid 20% = No Change
4. Nitric Acid 63% = No Change
5. Sulfuric Acid 98% = Slight change: 1.2 weight gain
6. Sulfuric Acid 98% at 150°C = Small change: 5.2% weight change.

For more information on Hi-Tech Seals' XS65 compound contact a Hi-Tech Seals representative, or email [info@hitechseals.com](mailto:info@hitechseals.com).

