

TK™-2

TK™-2 is a highly corrosion resistant broad spectrum “thin film” coating from Tuboscope. This thin film, liquid applied phenolic coating is specifically formulated for use in high temperature oil and gas production environments. TK-2’s dense coating system is useful in a broad spectrum of oilfield service environments including production, injection, and other fluid handling and specialty applications at temperatures up to 400° F. The smooth, resilient surface finish allows TK-2 to be successfully utilized to minimize paraffin, asphaltene and scale deposition. In addition, flow improvements of as much as 25% have been experienced when TK-2 was utilized, due to reduced friction across the surface.

Specifications

Type	Phenolic (Liquid)
Color	Maroon
Temperature	400°F (204°C)
Pressure	To yield strength of pipe
Applied Thickness	5–8 mils (127–203 µm)
Primary Applications	Production tubing, chemical vessels, flow lines, wellheads, acidic and CO ₂ lines, pumps and tools.
Primary Service	Oil, fresh and salt water, sweet corrosion (CO ₂) and gas production to 200° F
Limited Service	Alkaline (caustic) environments to pH 9; excursion to pH 11.5. (Also see TK™-69) Sour service (H ₂ S) to 200°F (93°C). (Also see TK™-7)

Stimulation Fluids:

When stimulation fluids are charged through coated tubing, there is generally little effect if the fluids are flushed completely through the tubular. However, some organic acids, caustic and solvents may have a detrimental effect on certain organic coating systems and should be evaluated prior to use. If stimulation fluids are left in the tubing, they can reach formation temperature and cause accelerated attack on the coating. A Tuboscope representative should be consulted when stimulation is contemplated.

Sample of Testing Capabilities:

Thermal Analysis

- Differential Scanning Calorimeter (DSC)
- Thermomechanical Analysis (TMA)
- Thermogravimetric Analysis (TGA)

Spectroscopy

- Fourier Transform Infrared Spectrophotometer
- Electrochemical Impedance Spectroscopy (EIS)
- Contact Angle

Chromatography

- Gel Permeation Chromatograph (SEC)
- High Performance Liquid Chromatograph
- Gas Chromatograph

Additional Physical/Chemical Testing

- High Pressure Autoclaves
- Microscope Analysis
- Immersion Testing
- Flow Loop Analysis

Product Development

- Lab Compounding Capabilities

