

TK™-15XT

Industry practices have dictated the need for internal coating systems to offer greater levels of abrasion resistance than historically used materials. As a result, we continue to make enhancements to our existing coatings, and develop a variety of new coating systems with greater levels of abrasion resistance to meet today's environments.

TK-15XT has a greater level of abrasion resistance while still maintaining the same level of chemical and temperature resistance our customers have become accustomed to with TK™-15. The thick-film coating is based on the same modified novolac chemistry as before, and now has an even higher degree of flexibility and damage tolerance. With improvements made to both abrasion resistance and damage tolerance, TK-15XT remains unmatched by any downhole coating system with a service temperature rating in the 300°F range, making it the best choice for a wide array of downhole and flowline applications.

Specifications

Type	Modified Novolac (Powder)
Color	Dark Green
Temperature	300°F (149°C)
Pressure	To yield strength of pipe
Applied Thickness	10–18 mils (254–457 µm)
Primary Applications	Production tubing, water and CO ₂ injection, disposal wells and flow lines.
Primary Service	Oil, natural gas, fresh and salt water, sweet corrosion (CO ₂), mild H ₂ S and alkaline service to pH 12.
Limited Service	Maximum operating temperature and H ₂ S level will be dependent on total operating environment.

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

