

TK™ -34P

TK™-34P is an epoxy-novolac coating formulated especially for resistance to corrosion over a wide temperature and pH range. By design it will remain intact even under repeated stresses imposed during drilling. The coating stops the first step, corrosion pitting, which can lead to corrosion fatigue, washouts and failure through twist off. Life extensions of three to four times compared to uncoated drill pipe have been realized. A full range of muds can be handled by TK-34P and the coating has been used successfully in the drilling industry for over 15 years. The abrasion resistant surface finish of the coating provides increased hydraulic efficiency. Power reductions of 10% to 25% are commonly realized due to the reduction of friction losses throughout the drill pipe.

Specifications

Type	Epoxy-Novolac (Powder)
Color	Green
Temperature	Withstands all temperatures commonly encountered during drilling, provided circulation is maintained
Pressure	To yield strength of pipe
Applied Thickness	6–12 mils (152–305 μm)
Primary Applications	Drill pipe coating for corrosion protection and hydraulic efficiency
Primary Service	Natural and synthetic drilling fluids

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

