TK™-70

TK™-70 is the tough , flexible, thick-film coating for secondary and enhanced recovery systems, particularly CO_2. This epoxy coating is especially suited for CO_2 injection, oil and water service where excellent mechanical and moderate temperature performance are needed. TK-70 resists hydrocarbons, which often cause significant problems in water handling, and provides outstanding protection even when systematic acidizing is done. TK-70 will resist most mechanical damage normally experienced in the field while still retaining a high level of corrosion resistance. Applied using the fusion bond process, this coating goes on both new and used pipe holiday free, and results in a smooth surface that provides increased hydraulic efficiency.

Specifications

Type	Epoxy *(Powder)*
Color	Dark Red
Temperature	225˚F *(107˚C)*
Pressure	To yield strength of pipe
Applied Thickness	10–20 mils *(254–508 µm)*
Primary Applications	New and used tubular goods
Primary Services	Subsurface CO_2, and water handling systems, salt solutions, crude oil production, and mild mineral acids
Limited Service	Should be limited with aromatic hydrocarbons and H_2S corrosives

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

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