

ACR-T16



Description:

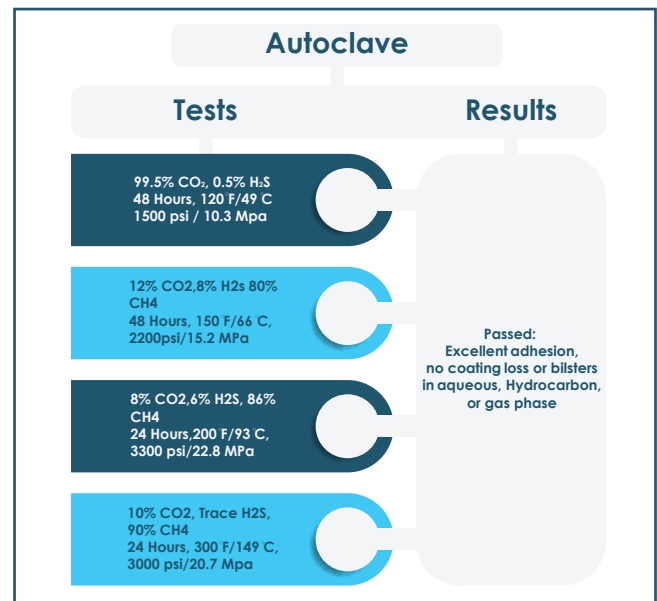
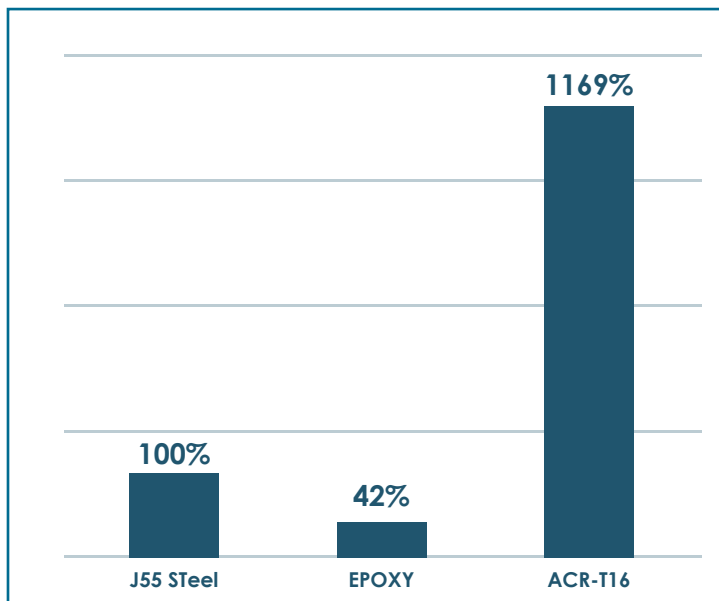
United Casing's ACR-T16 is a one-part, heat curable thermosetting epoxy coating applied on the internal surface of the pipe. The epoxy is applied to preheated steel as a dry powder which melts and cures to a uniform coating thickness.

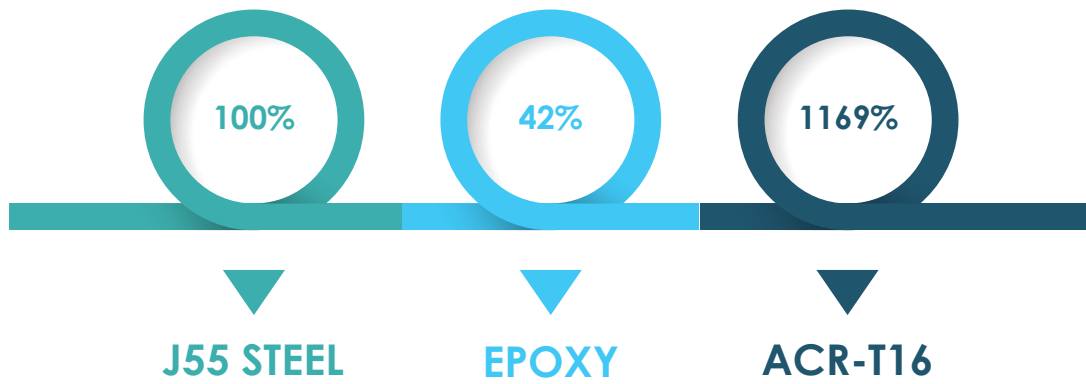
ACR-T16 has corrosion resistance to equal any FBE coating on the market, plus wear resistance that is unmatched in the industry.

Application:

This bonding process provides excellent adhesion and coverage on applications such as tubes, valves, pumps, pipe drains, hydrants, and porous castings. ACR-T16 main objective is wear prevention while preserving the original mechanical and chemical properties of steel.

Wear Resistance Vs. J55 Steel (Taber Abrasion ASTM D4060)





Benefits:

Benefits:

01

Abrasion/Corrosion resistance

02

Resistance to excessive wear and chemicals

03

Reduced mechanical damage

04

Reduced down-time

05

Reduced well servicing intervals and overall operational cost

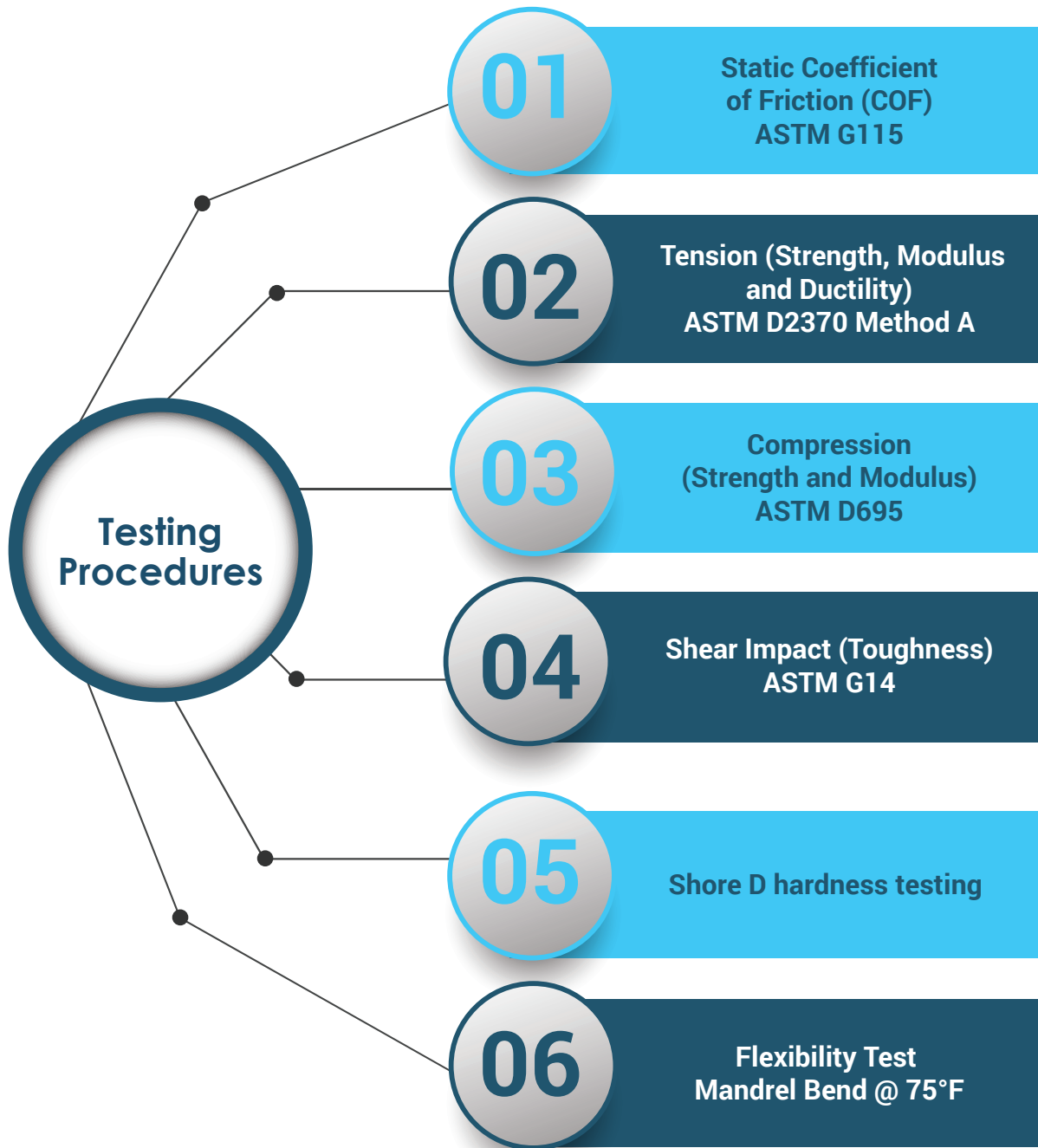
06

Improved fluid dynamics

07

Maximizes lifespan of tubular assets

Testing Procedures:



Mechanical Testing of Samples (Third Party Testing Lab)

Test	Sample	FBE	ACR-T16
Static Friction	Angle Slip Begins Static COF	15.5° 0.3	16.6° 0.298
Tensile Strength @ break (PSI)	1 2 3 Average	5990.6 5686 5159.8 5612.1	4323.5 5719.6 4568.4 4870.5
Tensile Modulus (PSI)	1 2 3 Average	393353.6 385466.8 318921.1 365913.8	228361.7 317073.5 282807.6 276080.9
Percent Elongation (%)	1 2 3 Average	1.70 1.65 1.75 1.70	2.20 1.95 1.70 1.95
Compressive Strength@ Peak (PSI)	1 2 3 Average	17277.5 18366 17348.6 17664	18753.6 19556.3 18886.9 19065.6
Compressive Modulus (PSI)	1 2 3 Average	95046.8 56186.6 49131.4 66788.3	48213.3 89056.5 82001.6 73090.5
Sheer Impact (in-lbs 5/8" tup)		Passed	Passed
Thermal Shock (-130°F to 320°F, 3 cycles)		Top coat separated from primer 100% Coating Crack	Unaffected by Thermal Shock
Hardness (Shore D)	On-wear track	88.4	90.1
	Off-wear track	87.0	91.8
Flexibility Test - 8in Mandrell	DFT (mils) Total Strain (°/pd) Total Elongation (%) Status	22 1.64 1.44 pass	N/A N/A N/A N/A
Flexibility Test - 10in Mandrell	DFT (mils) Total Strain (°/pd) Total Elongation (%) Status	20 1.35 1.17 pass	N/A N/A N/A N/A

Autoclave Tests:

Test Pressure:	1500 psi / 10.3 MPa	2200 psi / 15.2 Mpa	3300 psi / 22.8 Mpa	3000 psi / 20.7 Mpa
Test Temperature:	120° F / 49° C	150° F / 66° C	200° F / 93° C	300° F / 149° C
Test Duration:	48 Hours		48 Hours	
Gas Phase:	99.5% Co2, 0.5% H2S	12% Co2, 8% H2S, 80% CH4	8% CO2, 6% H2S, 86% CH4	10% CO2, Trace H2S, 90% CH4
Test Results:	Excellent adhesion, no coating loss or blisters in aqueous, Hydrocarbon, or gas phase			

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