ZEROCOR Green Solutions

ZCor300

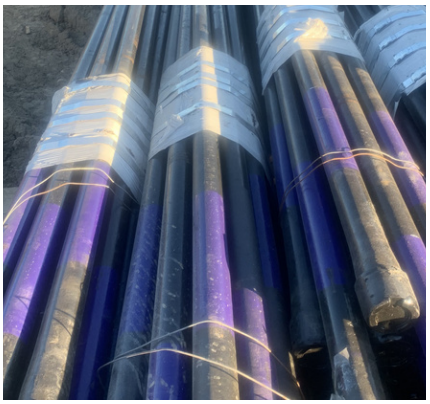
ZCor300 is a fusion-bond Novalac epoxy powder specifically designed for internal coating of tubing and casing to protect it from saltwater, petroleum products, and oil and gas production chemicals.

Features

- Applied uniform coating thickness of 10 - 12 mils, Full API Drift.
- Maximum operating temperature rating up to 150°C.
- Withstands high temperature and pressure conditions.
- Proprietary thread and coupling coating technology, enables complete tubing string protection.
- Low fluid permeability, high impact resistance.
- Excellent bond adhesion, abrasion, and chemical resistance.

Benefits

- Prevents paraffin, wax, and scale deposition.
- Surface is smooth with high gloss, improving flow efficiency.
- Resists corrosion and wear, reduced workovers and maintenance.
- Withstands multiple wireline runs, which consequently reduces the expense incurred due to the need for frequent replacements.
- No ID restriction, therefore no special running tools required.
- Compared to typical epoxies, offers superior corrosion protection.



Applications

- Brine injection and disposal wells, gas lift, WAG, CO_2 secondary oil recovery and H_2S gas producing wells.
- Operations struggling with paraffin, wax, or scale build-up.
- Used in wells with highly corrosive acid gases in combination with abrasive dissolved salts.
- Wells where longevity and productivity are compromised, reduces the amount of workovers and replacements.

ZCor300 is corrosion's core solution

ZEROCOR Tubulars | 1950, 639 5 Ave SW | Calgary, AB | (403) 234-7473
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PRODUCT SPECIFICATIONS

Physical Properties:	Value	Unit	Method
Colour	Brown-Green	-	-
Density	1.4 - 1.6	g/cm^3	ASTM D792
Maximum Operating Temperature - dry gas (temperature depends on total operating environment, i.e., H_2S, CO_2, pressure, rates)	≤150 (302)	°C (°F)	-
Non-Volatile Matter Content	≥99.5	%	-
Coating Thickness (Full API Drift)	10 - 12 (254 - 305)	mils (µm)	-
Mechanical Properties:			
Abrasion Resistance, Taber (1000g, 1000rpm)	<30	mg	CS-17
Adhesion, Pull-Off Strength	>20 (2900)	MPa (psi)	ASTM D4541
Static Coefficient of Friction (COF)	0.10	-	-
Impact Resistance	≥11 (97.4)	Joules (in.*lbs)	ASTM G14
Salt Fog, Salt Spray Test (1000+ hours)	PASS	hours	ASTM B117-97
Volume Resistivity	$>1*10^{13}$	Ω*m	-
Tensile Strength	51.7 - 63.1 (7500 - 9150)	MPa (psi)	ASTM D638
Yield Strength (average: 54.0 MPa)	37.9 - 55.2 (5500 - 8000)	MPa (psi)	-
Chemical Resistance:			
Autoclave Test Results: NO swelling, blistering, cracking or detachment from the substrate			
Test 1: 16-hour, 148°C (300°F), 70MPa (10150psi), Gas Phase N_2, Liquid Phase NaOH, pH = 12.5, 30-min decompression	PASS	hours	ASTM G8-96
Test 2: 16-hour, 130°C (266°F), 30MPa (4350psi), Gas Phase (1% H_2S, 20% CO_2, 79% CH_4), Hydrocarbon Phase (50:50 Toluene:Kerosene), Liquid Phase (Brine), 30-min decompression	PASS	hours	ASTM G8-96
Test 3: 16-hour, 107°C (225°F), 35MPa (5075psi), 1/3 Gas Phase (100% CO_2), 1/3 Hydrocarbon Phase (50:50 Toluene:Kerosene), 1/3 Liquid Phase (tap water), 30-min decompression	PASS	hours	ASTM G8-96
Test 4: 24-hour, 95°C (200°F), 20MPa (2900psi), Gas Phase (3% H_2S, 3% CO_2, 94% CH_4), Liquid Phase (Brine), 30-min decompression	PASS	hours	ASTM G8-96

January 2025

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