

Flint-Coat's mix of epoxy resin reinforced with flint aggregate creates a coating tougher than any other wrap in the world. Used for external casing applications where the wellbore and casing become one.



## Features

- Applied uniform coating thickness 40 - 50 mils.
- Operating temperature rating up to 149°C.
- Improves bond between cement and casing.
- Chemically inert, resistant to CO<sub>2</sub>, brine, and H<sub>2</sub>S.
- Protects freshwater zones by avoiding communication losses.
- Provides superior cathodic protection.
- Extremely rough and hard surface that resists crushing.



## Benefits

- High retention with wet cement, significantly improving the bond.
- Prevents gas migration and water encroachment into the production zone.
- Improves corrosion prevention and effectiveness.
- Excellent abrasion, chemical, and acid resistance.
- Reduction in workovers and well maintenance.
- Reduced spending on casing leaks and tubing replacement.



## Applications

- Production casing through unconsolidated zones.
- External corrosion protection on downhole tubulars.
- Coated tubing between injection intervals.
- Increase bond strength of pipe to cement interface.
- Isolate wellbores.
- Strong enough to withstand extreme forces from normal handling tools downhole.

## Don't forget your coat for outside protection

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

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## PRODUCT SPECIFICATIONS

Physical Properties	Measurement	Unit	Method
Coating Type	Epoxy with Flint Aggregate	-	-
Operating Temperature	149 (300)	°C (°F)	-
Pressure Rating	Yield Strength of Pipe	-	-
Coating Thickness	35-45 (890-1100)	mils (µm)	-
Mechanical Properties	Measurement	Unit	Method
Impact Resistance	4.1 (36.4)	Joules (in. lbs)	ASTM G14
Static Coefficient of Friction	0.187	-	-
Pull-Off Strength (Adhesion)	13.8 (1997)	MPa (psi)	ASTM D4541
Shear Test at 100°C (212°F)	15.3 (2219)	MPa (psi)	ASTM D1002
Salt Spray and Salt Fog Test, 672+ hours 35°C (95°F)	PASS	hours	ISO 7253

Chemical Resistance (Method: ASTM G8-96)					
ACID				ALKALI	
Substance	Test Result	Substance	Test Result	Substance	Test Result
Cathodic Disbondment: 30 days, 23°C (73.4°F)	1.5 mm	Corrosion Test: 7 days, 27°C (80°F)	See below	Corrosion Test: 7 days, 427°C (800°F)	See below
Corrosion Test: 7 days, 427°C (800°F)	See below	Acetic, 5%	Excellent	Sodium Hydroxide, 50%	Excellent
Acetic, 5%	Excellent	Citric, 10%	Excellent	Corrosion Test: 7 days, 27°C (80°F)	See below
Acetic, 10%	Excellent	Lactic, 5%	Excellent	Sodium Hydroxide, 50%	Excellent
Hydrochloric, 37.5%	Good (discoloration)	Hydrochloric, 37.5%	Good (discoloration)	Ammonium Hydroxide, 10%	Excellent
Hydrochloric:Hydrofluoric, 50:50	Good (discoloration)	Sulfuric, 50%	Excellent	SOLVENT	
Lactic, 5%	Excellent	Nitric, 10%	Excellent	Corrosion Test: 7 days, 427°C (800°F)	See below
Sulfuric, 50%	Excellent	Phosphoric, 85%	Fair (surface attack)	Toluene, Butyl, Ethyl Alcohol, Methyl Isobutyl Ketone, Chloroethane	Excellent
Nitric, 10%	Excellent	Hydrochloric-Hydrofluoric, 50:50	Good (discoloration)	Corrosion Test: 7 days, 27°C (80°F)	See below
Phosphoric, 85%	Fair (surface attack)	-	-	Toluene, Mineral Spirits, Butyl, Sour Crude Oil, Butyl Acetate, Ethyl Alcohol, Methyl Isobutyl Ketone, Chloroethane	Excellent
MISCELLANEOUS					
Corrosion Test: 7 days, 27°C (80°F)	See below	Corrosion Test: 7 days, 27°C (80°F)	See below	-	-
Tap Water	Excellent	Sodium Hypochlorite, 5%	Excellent	-	-

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