

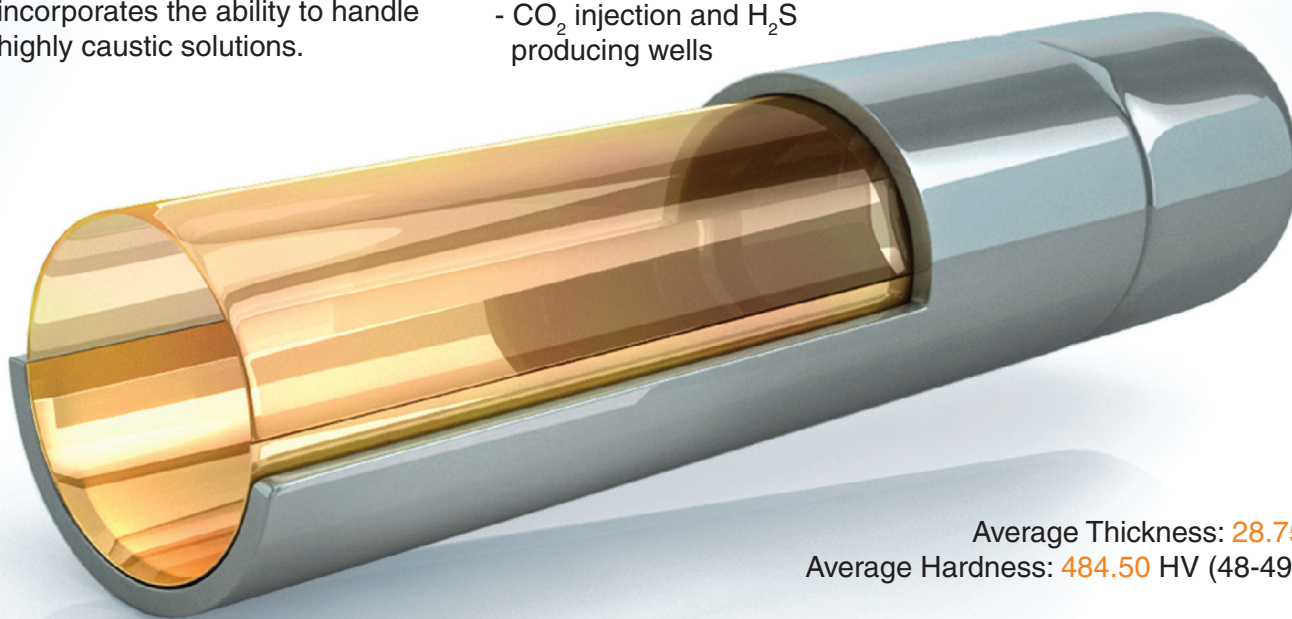
MAC-100Cc

(Corrosion Control)

MAC 100Cc is our signature corrosion control product that incorporates a proprietary blend that produces a high quality Metallic Alloy Coating that is resistant to CO₂, H₂S and incorporates the ability to handle highly caustic solutions.

Benefits

- No ID Restriction
- Bond Strength > 19 K - 60 K PSI
- Excellent Corrosion Resistance
- Complete Protection of your tubing string that includes threads and couplings
- Reduce and/or eliminate inhibitor use.
- Suitable for Injector and Disposal wells.
- CO₂ injection and H₂S producing wells

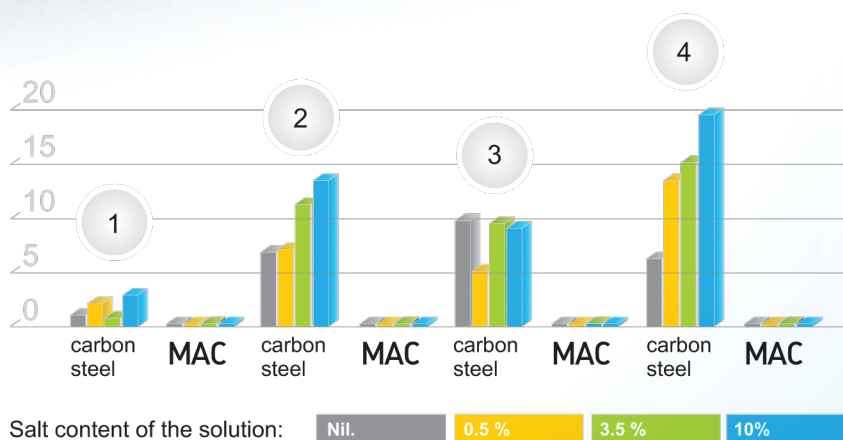


Average Thickness: 28.75 (µm)
Average Hardness: 484.50 HV (48-49 HRC)

Corrosion of Steel and Metallic Coating in Petroleum Production Brine at 95 Deg. C Corrosion rate, Mills Per Year

- 1 N₂ Deoxygenated Solutions
- 2 CO₂ Saturated Solutions
- 3 H₂S Saturated Solutions
- 4 CO₂+H₂S Saturated Solutions

REF: EN Conference 1980, R. Duncan, corrosion Results for petroleum applications



Manufacturing:
Box 1101, 1507 - 7 Street
Nisku, AB T9E 8A8
24 hr. 1-780-918-8100
Office: 1-780 979-0599

Corporate Office/Sales:
250 - 1220 Kensington Road NW
Calgary, AB T2N 3P5
Office: 403-233-7473
24 hr. 403-874-3933

Technical/Sales inquiries:
thompson.stew@gmail.com
<http://pcscanada.ca/>

MAC-100Cc Technical Specifications

Hardness	484.50 HV (48-49 HRC)
Ductility	2.0% Elongation
Wear Resistance	12-16TWI
Magnetic Properties	Non-magnetic
Electrical Resistivity	50-100 micro ohm/cm
Corrosion Resistance	Excellent
Coating Thickness	1-3 mils
Melting Point	880 °C
Coefficient of Thermal Expansion	12.0 U m/m °C
Tensile Strength	800 MPa
Modulus of Elasticity	170 GPa
Structure	Amorphous
Density	7.8 gm/cm ³
Coefficient of Friction	0,15
RA reading	135.7 micro-inch
Bond Strength	19 K - 60 K PSI

Wear and Friction Data / Dry Sliding Properties

Wear System	Wear Rates		Dynamic Coefficient of Friction	
	Pin (m ³ /Nm)	Disc (m ³ /Nm)	Start	End
Steel / Steel	5.5 x 10 ⁻¹²	8.2 x 10 ⁻¹²	0.48	0.73
Steel / E'less Ni (9%P)	3.4 x 10 ⁻¹³	7.4 x 10 ⁻¹³	0.44	0.56
Steel/ Hard Chromium	6.9 x 10 ⁻¹⁴	5.0 x 10 ⁻¹⁵	0.25	0.71
Steel/ MAC 100	3.0 x 10 ⁻¹⁵	3.5 x 10 ⁻¹⁵	0.15	0.16
Steel / TiN	2.7 x 10 ⁻¹⁵	6.7 x 10 ⁻¹⁵	0.70	0.93

0.25 μ					
0.15 μ					
0.05 μ					
Start:0.011, Min:0.100, Max: 0.164					
Mean: 0.157, Std. Dev.: 0.006					
0.10 s	729 s	1.46E03 s	2.19E03 s	2.92E03 s	3.64E03 s
0.00 m	6.20 m	12.40 m	18.60 m	24.80 m	31.00 m
0 lap	155 lap	310 lap	465 lap	620 lap	775 lap

Base: Material Pin / Disc 0.4% carbon steel
 F = 20N, v = 800 mm/min, Ra = 0.9 -1.1 μm,
 thickness = approx. 20 μm, t = 60 min, Pin-radius r = 5 mm

According to ASTM G133 /DIN 50324

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