

DOWNHOLE TOOLS

IMPREGLON® Coatings

IMPREGLON® coatings have proven themselves in severe service wells across Western Canada, and are the established industry standard for corrosion and deposition prevention for oil and gas production equipment. Impreglon's customers include end users, completions companies, OEM's, and supply houses.

Recommended Services

IMPREGLON® coatings are used in a range of severe environments including:

- Injection wells (H₂O, CO₂, polymer)
- H₂S service
- High water cut wells
- Brine service

Parts Coated

IMPREGLON® coatings have been used in both oil and gas service and on a wide variety of downhole tools including:

- Packers
- Gaslift/side pocket mandrels
- On-Off tools
- Safety valves
- Seal assemblies
- Pup joints
- Seal bores
- Nipples

Impreglon Advantage

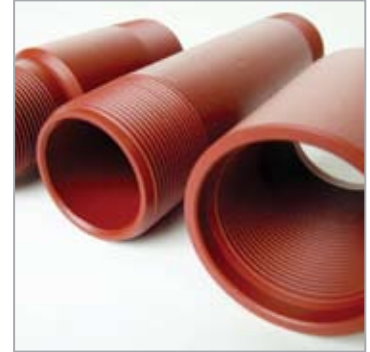
The downhole environment has become increasingly hostile. Due to the combination of aggressive conditions and increasing remediation costs, protecting metal parts against corrosion has become a major focus for both large and small producers. IMPREGLON® coatings have proven effective in protecting downhole tools from premature failure in wells for a number of reasons:

1. Exceptional Chemical Resistance at Elevated Temperatures

- Coating chemistry designed to withstand the most aggressive downhole environments including: amines, acids, chlorides, solvents, gases, oxidation, and bacteria in temperatures up to 550°F.

2. Superior Adhesion

- Coating chemistry and Impreglon application process combined to ensure a flexible coating with a tenacious bond
- Will not chip, crack, peel, flake, or blister when used in appropriate services
- Proven ability (lab and field) to withstand explosive decompression common in downhole environments
- Resists undercreep when damaged e.g. assembly/wireline damage



3. Maximum Protection

- Thin profile 1.5 mils allows 100% of the part to be coated, including most threads and seal areas
- No breaks, gaps, joints or connections means no weak spots in vulnerable areas which means no place for corrosion to start

4. Low Cost and Minimal Hassle

- Thin profile saves money by allowing use of off-the-shelf-parts
- No expensive modifications required to accommodate coatings
- Coated assemblies like packers and on-offs are easily reassembled

5. Short Lead Times

- Turnaround for the average packer order is less than four days
- Rush jobs can often be completed in under 24 hours

6. Incidental Cost Relative to Risk of Well Failure

- Well is only as stable as its most vulnerable component
- IMPREGLON® coatings represent an inexpensive risk-reduction strategy to mitigate against potential loss

Cost to Coat 5 ^{1/2} x 2 ^{7/8} Packer	Cost to Retrieve and Replace Failed Packer (Excluding Lost Production)
\$750	\$30,000 – \$500,000

7. Additional Advantages

- *Anti-galling:* IMPREGLON® coatings are self-lubricating which helps prevent galling on threaded connections on both makeup and breaking operations
- *Sealing:* “Cold flow” describes the ability of IMPREGLON® coatings to flow under pressure (i.e. on threaded connections), thus allowing the coating to seal in a manner similar to Teflon® tape
- *Premium Threads:* When masking is required, the coating can be applied to a precise endpoint without adversely affecting the sealing characteristics of the thread

Recommended Impreglon Coating

IMPREGLON® 222M's proven effectiveness has established it as the solution of choice for mitigating corrosion and deposition on downhole tools. Contact us for a recommendation based on your particular service conditions.