



POLYCORE
TUBULAR LININGS 
A Subsidiary of Western Falcon Energy Services

Our Patented Thermoplastic Liner Technology Increases Tubular Runlife, Reduces Costly Workovers.

Polycore Tubular Lining, a wholly owned subsidiary of Western Falcon Energy Services (WFES), supplies the Oil & Gas Industry with several patented recyclable thermoplastic liners that mitigate rod wear and extend well run life. Polycore Tubular Lining, based in Calgary and Bow Island, Alberta, handles tubular needs and tubular failure protection requirements for Polycore Energy Services' Canadian customers. Fully operational since June 2007, the Bow Island Facility installs thermoplastic liners in both new and used OCTG.

Our liner material incorporates proprietary lubricants that solve wear and corrosion failures in all types of artificial lift. They are extremely smooth, leading to decreased pressure drops, electrical cost savings, increased velocity/siphon flow, and increased production due to fundamental hydraulic benefits. Our liners are proven resistant to wire line, acid and chemical damage. Polycore uses a unique mechanical bond, making reuse of used and lower-quality tubing possible, saving on steel costs. Due to our bonding procedure, liners can be used in pipe with surface imperfections, damage and used internal plastic coatings without the additional cost of removal.

We have proven effective in highly deviated, dog-legged, and horizontally drilled wells with extremely high side loads, without the additional costs of rod guides or tubing rotators. Polycore liners have been equally successful in controlling tubular corrosion in other artificially lifted and disposal wells, and our connection system is the most reliable and easiest to install in the OCTG corrosion control industry. Polycore's family of thermoplastic liners are designed for specific well environments. There are many co-dependent variables when considering the proper thermoplastic liner for your specific well. "One size does not fit all." We want to partner with you to understand your needs and well environments, and find the right liner solution for YOU.

For more information, or to specifically discuss your well conditions and environments, please contact us toll-free at 866-903-2975.



ELIMINATE ROD ON TUBING WEAR AND CORROSION FAILURES

PRODUCT LINE

Falcon Polycore High Density Polyethylene Liner

Falcon Polycore™ is a High Density Polyethylene (HDPE) liner as specified by the Plastic Pipe Institute's specifications. This product is highly abrasion resistant, which accounts for its success in the mitigation of rod on tubing wear, as well as wire line, mechanical and handling damage. HDPE is chemically inert to corrosive materials enhancing its use as a corrosion barrier. The mechanically bonded, seamless thermoplastic tube is tolerant to minor surface imperfections in pipe, and/or voids, as in adhesive or thermally bonded liners and coatings.

Maximum temperature is 71° C (160° F) Oil, 82° C (180° F) Aqueous.

Falcon Polycore Modified High Density Polyethylene Liner

Falcon Modified Polycore™ is a High Density Polyethylene (HDPE) liner that has the same characteristics as Polycore (above), with a collapse strength double that of our standard HDPE liner.

Maximum temperature is 71° C (160° F) Oil, 82° C (180° F) Aqueous.

Falcon Enertube Polyolefin Liner

Falcon Enertube™ is a liner manufactured from a specially formulated blend of polyolefins. This liner is similar in mechanical properties to the field-proven Falcon Polycore™ liner, with a moderate increase in tensile strength and temperature resistance. This second generation of Falcon liners is specifically designed to operate in wells too hot for Polycore™, and is a seamless, mechanically bonded liner, providing a smooth tubing surface.

Maximum temperature is 99° C (210° F) in all services.

Falcon Ultratube Engineering Thermoplastic Liner

Falcon Ultratube™ is a high performance liner manufactured from a proprietary blended polyphenylene sulfide thermoplastic resin specially formulated for use in downhole oil and gas production environments. This third generation liner has a significant increase in temperature stability, tensile strength, abrasion and chemical resistance over the other proven liners. The innovative polymers in this liner offer the broadest range of resistance to solvents, steam, strong bases, fuel, and acids. The new polymers are specifically designed to limit—not prevent—the permeability of acid gases such as CO₂ and H₂S.

Maximum temperature is 175° C (350° F) in all services.

Falcon Extremetube Engineering Thermoplastic Liner for Extreme Conditions




Falcon Extremetube™ is a high performance liner for the most extreme operating conditions. This unique liner is made from PEEK™ polymer, and is the highest tensile strength, and highest temperature liner available. Extremetube™ is an excellent alternative to corrosion resistant alloy (CRA) tubulars, and offers protection against corrosion and wear problems under the most severe environmental conditions.

Maximum temperature is 260° C (500° F).

Contact us today to find a solution for you. 866-903-2975

100% RECYCLABLE LINERS

PRODUCT DETAILS AND SPECIFICATIONS

Applications	Polycore™ 	Modified Polycore™ 	Enertube™ 	Ultratube™ 	Extremetube™ 
Beam Pumped Wells	✓	✓	✓	✓	✓
PC Pumped Wells	✓	✓	✓	✓	✓
Submersible Pumped Wells	✓	✓	✓	✓	✓
Water Injection	✓	✓	✓	✓	✓
Disposal	✓	✓	✓	✓	✓
Water Source	✓	✓	✓	✓	✓
High Temperature Wells				✓	✓
Acid Gas Injection		✓	✓	✓	✓
Gas Lift Wells			✓	✓	✓
Plunger Lift Wells	✓	✓	✓	✓	✓
Solution Mining	✓	✓	✓	✓	✓
CO ₂ Injection (WAG) Wells				✓	✓
Coal Bed Methane			✓	✓	✓
Steam Flood				✓	✓
Flow Lines	✓	✓	✓	✓	✓



Specifications

- Coated couplings to protect the J-area against corrosion-eliminating inserts and barrier seals
- Minimum API torque recommended during tubing make-up
- No special position make-up required (*Extended length couplings available if torque is required that exceeds minimum API*)
- Contact representative when considering use in elevated pressure/concentrations of CO₂

Product Benefits

- Mitigates rod on tubing wear in all environments, including those with side loads exceeding 454 kg
- Corrosion control solution
- Extends tubing and rod runlife
- Minimizes corrosion inhibitor volumes
- Reduces well servicing frequency and cost
- Reduces tubing and rod replacement
- Reduces corrosion inhibitor requirements
- Reduces friction and peak polished rod loads
- Eliminates need for rod guides
- Reutilizes current inventory by lining surplus tubing
- Apply over used coatings
- Decreases pressure drop in high velocity flow
- Environmental benefits include power savings and recyclability

Go to polycore.ca to find your local sales rep.

ALL WELL ENVIRONMENTS ARE UNIQUE

THE WESTERN FALCON DIFFERENCE

Unmatched Experience

Polycore, a subsidiary of Western Falcon Energy Services, has run more than 20 million meters (70 million feet) of thermoplastic liners throughout the world. We have the knowledge and expertise to provide a tubular solution for ANY well environment.

Unbeatable Thermoplastic Liners

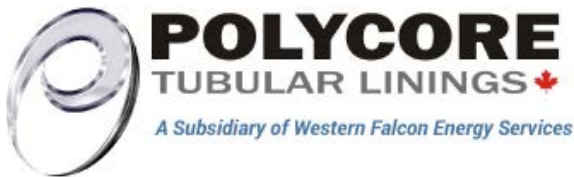
Polycore's technologically advanced thermoplastic liners are more robust, flexible, and are less expensive than the alternative thermoset coating. This type of liner technology is suitable for all types of well environments, regardless of temperature, depth or well type.

Unlimited Well Type Applications

Our patented liner technology has been designed to solve wear and corrosion issues in both water and in producing well bores. The design is so flexible that you can run one string for multiple uses. This is an ideal solution for a conversion well. This versatility directly translates to less changeover and speaks to its longevity.

Unconventional Results

Industry leaders in major producing regions around the world are running our technologically advanced liners to reap cost savings, reduce workover downtimes and increase revenue. Our liners can do the same for you.



Polycore has a wide breadth of success in over 80,000 wells worldwide — we look forward to discussing a solution for you. Go to polycore.ca to find your local sales rep, or call 866-903-2975.

V1PC

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