

PRODUCT: POLY PLUG® Marcitsm-LC

FUNCTION:

Total shut-off squeeze treatments that effectively seal off water or gas
 Effective in full shut-off treatments into fractured and vugular formations
 Effective in sealing casing leaks
 Effective in sealing channels behind pipe



Effective in solving severe loss circulation

GENERAL DESCRIPTION:

POLYPLUG® is formulated with a high molecular weight anionic polymer and is ideal for shut-off treatments into fractured, vugular and high permeability formations. In addition to the polymer and cross-linking agent, a broad range of LCM (**ULTRA SEAL-PLUS®**) is included to slow seepage of the polymer solution into the formation. The cross-link technology is patented by **Marathon Oil Company** and is referred to as Marcitsm-LC. The product produces a rigid, robust gel structure.

PRODUCT BENEFITS:

- **POLY PLUG®** effectively seals fractures, vugs, weak zones, flowing, over pressured zones
- **POLY PLUG®** is a single sack product, pre-blended for ease of mixing
- **POLY PLUG®** can be mixed and placed with standard rig equipment or cement blender.

POLYPLUG® IS NEVER A DRILL-OUT PROBLEM SIMPLY WASH THROUGH ANY MATERIAL LEFT IN PIPE FOR EASY CLEAN OUT!!!

PRODUCT DESCRIPTION:

Form: Brown Powder

Packaging: 40 lb sack

TYPICAL TREATMENT:

- **POLYPLUG®** is mixed into water at concentrations of **40 lb/bbl or** in batches of **5-300 bbl's**.
- Each **POLYPLUG®** treatment is based on the bottom hole temperature, casing/OH size, length of zone and other variables. Depending upon BHT, the addition of a retarder (**ULTRA SEAL-XLR®**) or accelerator (**ULTRA SEAL-XLA®**) will be required. It is also recommended to add one five-gallon pail of **ULTRA SEAL-XLD®** per 50 bbls of mix water to aid in mixing of the slurry.

PRODUCT: POLY PLUG® CLEAR GEL (Maraseal-EZsm)

FUNCTION:

- Total shut-off squeeze treatments that effectively seal off water or gas
- Effective in full shut-off treatments into rock matrix less than 750 md
- Effective in sealing casing leaks
- Effective in sealing channels behind pipe
- Sealing perforations in water zones
- Profile modification treatments



GENERAL DESCRIPTION:

POLYPLUG® CLEAR GEL is formulated with high concentrations of low molecular weight anionic polymer. When combined with a carboxylate complex cross-linking agent, the product produces a rubber like ring gel structure.

POLYPLUG® CLEAR GEL, is also referred to as **MARA-SEALSM-EZ**. **MARA-SEALSM-EZ** is exclusively licensed technology from **MARATHON OIL COMPANY**.

PRODUCT BENEFITS:

- **POLYPLUG® CLEAR GEL** is designed with a low viscosity prior to cross-linking to aid in injectivity.
- When placed in small openings the result is a total shut-off.
- **POLYPLUG® CLEAR GEL** is a clear fluid which works by entering the reservoir and reducing permeability, not by simply plugging the perforation as in Portland cement treatments.

POLYPLUG® CLEAR GEL IS NEVER A DRILL-OUT PROBLEM SIMPLY WASH THROUGH ANY MATERIAL LEFT IN PIPE FOR EASY CLEAN OUT!!!

PRODUCT DESCRIPTION:

Form: White/Green Powder

Packaging: 22.5 lb pail or 10.2 kg Pail

TYPICAL TREATMENT:

- **POLYPLUG® CLEAR GEL** is mixed into water at concentrations of **22.5 lb/bbl** in batches of **5-400 barrels**.
- Each **POLYPLUG® CLEAR GEL** treatment is based on the bottom hole temperature, casing size, length of perforations and other variables. The addition of Ultra Seal-XLR® or Ultra Seal-XLA® maybe required depending upon bottom hole temperature.