

## RECOMMENDATIONS

#### A. Drilling

- Can be used in place of conventional lost circulation material to stop lost circulation and prevent blow-outs.
- 2. Recommended for all types of lost circulation zones.
- 3. Seals fractured limestone/dolomite, sandstone, and shale.
- Small pills of Ven-Block™ can be used to stabilize unconsolidated gravel zones.
- Small pills can be spotted in high permeability sand to minimize differential sticking.
- A 10-20 bbl pill of Ven-Block™ ahead of the cement can prevent loss of low viscosity cement.
- Water flows can be shut off by squeezing Ven-Block™ into the zone prior to drilling ahead.
- Ven-Block<sup>™</sup> can be used in conjunction with other lost circulation materials such as VEN-PLUG<sup>™</sup>/VEN-PLEX<sup>™</sup> for improved plugging and drilling operations.

#### B. Workover and completion

- Ven-Block<sup>™</sup> can be used for sealing casing leads in old or damaged casing and tubing strings.
- Ven-Block<sup>™</sup> can be used to correct injection profiles and water injection on disposal wells.
- Ven-Block<sup>™</sup> can be used to stop lost circulation of highly permeable sands during workover operations.
- Ven-Block<sup>™</sup> can be designed to revert to a low viscosity water solution at a predetermined time by using a small concentration of VEN-BREAK<sup>™</sup> 15, enzyme breaker. Set times can be extended by using VEN-XTEND<sup>™</sup>.
- Ven-Block<sup>™</sup> may be spotted inside a tubing or work string. It then acts as a readily removable plug. A concentric tubing string or coiled tubing may be worked through this plug.
- Ven-Block<sup>™</sup> is useful for diverting acid during well cleanup or stimulation operations.

# **VEN-BLOCK**<sup>TM</sup>

## **GENERAL INFORMATION**

Ven-Block<sup>™</sup> is a blend of special organic polymers and auxiliary complexing chemicals. The blended product forms a time-delayed, self-complexing plug. Ven-Block<sup>™</sup> forms a tough, insoluble, rubbery material that can be used as a temporary or permanent lost circulation product in drilling, completion, and workover fluids.

Ven-Block<sup>™</sup> can be mixed in fresh water, sea water, potassium chloride, sodium chloride, or brines. The product can be weighted up to 19 lb/gal with barite or iron carbonate. Lower weights can be achieved with calcium carbonate or sized salts. Ven-Block<sup>™</sup> is a nontoxic, noncorrosive, and nonpolluting polymerbased lost circulation material.

## PACKAGING

Ven-Block<sup>™</sup> is packaged in 35 lb weather-proof plastic pails.

## SPECIAL PRECAUTIONS

 Accurate pumping times may be obtained only by on-site pilot testing.
 As for detailed Ven-Block<sup>™</sup> mixing procedures or consult with your enventives, LLC. engineer.

## PHYSICAL AND CHEMICAL PROPERTIES

Form Color Bulk Density

Particle Size Initial Viscosity, cps Final Viscosity, cps

- Free flowing powder
  Off-White
  compacted: 59.65 lb/cu.ft. uncompacted: 41.16 lb/cu.ft.
- : 100% 20 mesh
- : Less than 400
- : 50,000+ (Rubbery gel)

## **STORAGE AND HANDLING**

Special precautions should be taken to make sure that Ven-Block™ is stored and protected from moisture. See Safety Data Sheet for specific information concerning storage, handling, transportation, and safety requirements.

The information presented herein is based on the best data available and is believed to be correct. Nothing stated in this information is to be taken as warranty, expressed or implied, regarding the accuracy of the informationor the use of the product; nor shall anything contained herein be construed to constitute permission or recommendation to practice any invention or know-how owned by enventives, llc, any of its divisions or by others without a license by the owner of the patent, patent application or know-how. REV. No.: 02 REVIEWED/REVISED: 04/16