

**Product** Description **DF-Seal**<sup>TM</sup> Lost Circulation additive is a blend of high-strength granules (bridging agents), fibers (matting agents), and flakes (sealing agents) designed primarily to stop lost circulation in a wide range of conditions with water-based drilling fluids. To function effectively over the widest range of lost circulation conditions. functions by forming a bridge and then packing-off around the bridge to form the final seal.

## Application **Areas**

**DF-Seal**<sup>TM</sup> additive is available in the following three grinds:

- 1) Coarse grind is used to seal large fractures and highly permeable formations and can be pumped easily through large jets or open pipe.
- 2) Medium grind is used in sealing medium-to-fine fractures and porous zones and can be used with most jet bits.
- 3) Fine grind is used where seepage losses are a problem, such as with fin fractures or porous formations. Fine grind can be circulated through coursemesh shaker.

## Advantages

**DF-Seal™** additive can provide the following advantages:

- It can form a light, strong seal under high and low differential pressures and can be used to effectively stop loss of fluid in unconsolidated formations and fractures or vugs in hard formations.
- The seal is not easily removed by bit movement or mud circulation.
- Has such wide versatility that it can eliminate the need to keep other types of lost circulation material on location.

## **Properties**

- Appearance .......Combination of granular, flake, fibrous materials
- Color.....Yellow to brown blend of particles...
- pH (10% solution).....Neutral
- Bulk Density......500 800 kg/m3

## Recommended **Treatment**

- A lost-circulation pill of 100 to 200 bbl, containing 20 to 30 lb/bbl DF-Seal additive is recommended for spotting across the loss zone, Displace the slurry at a reduced pumping rate.
- Can be added through the hopper or directly into a well agitated suction pit

**Packing** 

**DF-Seal**<sup>TM</sup> Available in 40 LB / SX multiwall paper sacks

Safe **Handling**  DF-Seal additive is a nonhazardous material and can safely be used in environmentally-sensitive areas. Utilize normal precautions for employee protection when handling chemical products

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