



# DIAMOND SEAL<sup>®</sup>

Absorbent Polymer for Lost Circulation

**Description** DIAMOND SEAL is a water-swellaable but not water-soluble, 100% crystalline synthetic polymer. DIAMOND SEAL absorbs hundreds of times its own weight in water. It is intended for use primarily as a lost circulation material for horizontal directional drilling.

**Applications/Functions**

- Lost circulation material for horizontal directional drilling
- Prevent inadvertent returns in river crossing applications
- Stabilize borehole in cobble and gravel
- Stabilize unconsolidated formations

**Advantages**

- Rapid water absorption
- Effective in mitigating lost circulation
- Economical – small quantity yields large volume
- Easy to use
- Non-fermenting

**Typical Properties**

- |                                    |   |
|------------------------------------|---|
| • Appearance                       | off-white free-flowing crystals                   |
| • Specific gravity                 | 0.75  |
| • Dry screen analysis              | 96% through 5 mesh (4.0 mm)                       |
| • Swelling capacity in fresh water | 3.5 ft <sup>3</sup> /lb (0.22 m <sup>3</sup> /kg) |

**Recommended Treatment**

**For slug treatment:**

- Add 1/2 to 1 pound (0.25-0.5 kg) DIAMOND SEAL per joint

**As a pill:**

- Add DIAMOND SEAL at 10 - 20 lb/100 gallons of drilling fluid
- Add DIAMOND SEAL at 12 - 24 kg/m<sup>3</sup> of drilling fluid

**Treatment for Loss of Circulation or Inadvertent Returns in HDD**

**Operations:**

(Prior to pumping remove all in-line screens in circulating system)

Add the following to existing drilling fluid and displace:

- |                       |   |  |
|-----------------------|---|--|
| BAROLIFT <sup>®</sup> | - | 0.25 - 0.5 lb/100 gallons (0.3 - 0.6 kg/m <sup>3</sup> ) |
| N-SEAL <sup>™</sup>   | - | 3 - 5 lb/100 gallons (3.6 - 6.0 kg/m <sup>3</sup> )      |
| DIAMOND SEAL          | - | 10 - 20 lb/100 gallons (12 - 24 kg/m <sup>3</sup> )      |

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**Packaging** DIAMOND SEAL® is packaged in 10-lb (4.5-kg) resealable plastic containers.

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**Availability** DIAMOND SEAL can be purchased through any Baroid Industrial Drilling Products Retailer. To locate the Baroid IDP retailer nearest you contact the Customer Service Department in Houston or your area IDP Sales Representative.

**Baroid Industrial Drilling Products**  
**Product Service Line, Halliburton**  
3000 N. Sam Houston Pkwy E.  
Houston, TX 77032

**Customer Service** (800) 735-6075 Toll Free (281) 871-4612

**Technical Service** (877) 379-7412 Toll Free (281) 871-4613

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