

## Product Summary

Single sack precise blend of premium cellulose fiber and sized particulate. First Response® is an effective treatment for all losses from seepage to severe. First Response® was developed by Turbo-Chem's R&D Laboratory to address the operators need of solving a wide range of lost circulation issues with a one sack material.

## Physical Properties:

Appearance: White/Gray Powder  
Specific Gravity (g/mL): Premium Seal Reg (1.75)  
Bulk Density Un-Compacted (lb./ft<sup>3</sup>): 23.6  
Compacted (lb./ft<sup>3</sup>): 40.0

## Recommended Treatment

- System Treatment: 2-6 ppb
- Sweeps: First Response® (5-25 ppb) along with SYN-Seal® (5-10 ppb)
- Pill: First Response® (15-70 ppb) can be run alone or with SYN-Seal® (10-30 ppb) to maximize effectiveness in zones where there are whole mud losses.

## First Response® PSD

U.S. Mesh Screen (Micron)	Product Retained, g
6 (3400µ)	5.0
8 (2360µ)	6.0
10 (2000µ)	4.0
14 (1400µ)	9.0
18 (1000µ)	9.0
35 (500µ)	15.0
60 (250µ)	12.0
100 (150µ)	38.0
120 (125µ)	2.0

## Wellbore Stability Benefits:

- First Response® is a carefully selected broad particle size range LCM proven to seal multi-sized fractures and reduce effective response time to whole mud losses.
- Can be pumped through down hole tools up to 75 ppb.
- Proven to be highly effective when staged or pumped ahead of EZ Squeeze® or cement.
- Effective at both low and high wellbore temperatures.
- Easily mixed through the hopper.
- Compatible mixing in all drilling fluids.
- Maximum effect in sweeps/pills when used with SYN-Seal® or Bore-Seal 100.

## Handling and Storage

Proper PPE should be worn while handling this product. Minimize dust exposure. Please review SDS before using.

## Packaging

First Response® is available in 25 lb. sacks, 50 sacks/pallet.