



## GAS SEAL

Gas seal is a harmless cationic high molecular weight polymer solution and is used to control or prevent gas migration after primary cementing and in critical cement plugs. Gas seal can only be used in combination with anionic additives like lignosulphonate retarders and/or friction reducers. Laboratory testing is recommended to determine type of friction reducer requested to prevent “synergistic effects” or precipitation. The freezing point of Gas seal is minus 10°C and can be lowered by additions of methanol. The pH is about 7.

## Application

Recommended: 5 to 20 liters per 100 kg of cement. Normally 10 liters are more than sufficient, depending on type, brand and quality of the cement. Run laboratory tests under simulated field conditions in a HTHP consistometer and HTHP fluid loss test cell. Add retarders as needed to obtain sufficient pumping time. Finally check for HTHP cement settling. Suggestion: test slurry in HTHP consistometer for some time, less than the final thickening time, then transfer slurry to both fluid loss cell and to cement settling cylinder. When needed, add microsilica to improve rheology and/or settling. Gas seal does not need anti coagulation additives. Gas seal is a non-critical additive for cement and safe to use. Gas seal can be used with Portland, Slag and Pozzolan cement, with or without bentonite or attapulgite. Gas seal is compatible with salt up to saturation. Gas seal is compatible with Calcium chloride: it functions even better with 2% calcium chloride.

## Properties

|                |                        |
|----------------|------------------------|
| Appearance     | clear yellowish liquid |
| Active content | 40%                    |
| Charge         | strongly cationic      |
| Density        | 1100 kg/m <sup>3</sup> |
| Viscosity      | max. 4500 mPa s        |
| pH             | 7.5                    |

## **Storage**

Gas seal must be stored inside at room temperature. Open containers must be tightly closed.

## **Packaging**

1050 kg IBC's or 125 kg drums.