Baker Hughes

Magne-Plus/Magne-Plus LT cement systems

Applications
- Remedial cementing operations
- Temporary zonal isolation

Features and Benefits
- Controls lost circulation
- Nondamaging to the formation
- 100% soluble in 15% HCl at virtually all temperatures
- Can be mixed with any available water
- Does not require special spacers and flushes
- Can be easily mixed and pumped with conventional cementing equipment
- Does not contain Portland cement
- Compatible with most wellbore fluids and high concentrations of salt

The Baker Hughes **Magne-Plus™ and Magne-Plus LT fully acid-soluble cement systems** are nondamaging to the formation. These unique systems can be used to correct lost circulation problems when setting wellbore plugs, as a diverter, or to provide temporary zonal isolation.

Although the Magne-Plus/Magne-Plus LT systems have the characteristics of conventional cements in strength and pumpability, they are chemically different. When mixed with water, this stoichiometric mixture of magnesium/calcium oxides and carbonates/sulfates polymerizes to form a polyhydrate that is unaffected by normal cement contaminants.

The Magne-Plus LT system is the low-temperature version, designed to work in wells cooler than 140ºF (60ºC).

Safety precautions
Refer to system component material Safety Data Sheets (SDS) for handling, transport, environmental information, and first aid.

References
- SDS
- Cementing engineering support manual
- Baker Hughes R-9 sodium borate cement retarder overview

Typical properties		
	Magne-Plus system	**Magne-Plus LT system**
Appearance	Gray powder	Gray powder
Typical temperature range	140 to 220ºF (60 to 104ºC) BHCT	50 to 140ºF (10 to 60ºC) BHCT
Typical slurry density range	12 to 18 ppg (1438 to 2157 kg/m^3)	12 to 18 ppg (1438 to 2157 kg/m^3)
Typical concentration range	2.92	2.92
Specific gravity	55.0 lbm/ft^3 (881.0 kg/m^3)	55.0 lbm/ft^3 (881.0 kg/m^3)
Bulk density	0.0411 gal/lbm (0.3430 L/kg)	0.0411 gal/lbm (0.3430 L/kg)
Absolute volume	0.0844 gal/lbm (0.7044 L/kg)	0.0922 gal/lbm (0.7694 L/kg)