



asg chemie



OIL & GAS

Product range consists of raw materials and innovative high-performance solutions for formulating engineered products for drilling and cementing of oil well applications. Unique chemistries meeting the industry's increasing demand for efficiency, productivity and sustainability.

Ingredients range from dispersants / water reducers, retarders, accelerators, fillers, de-foamers, cement alternatives, corrosion inhibitors, fluid loss control agents and viscosity modifiers .

ACCELERATORS

Calcium Chloride

Calcium chloride is used as an accelerator and increases the cement slurry strength. It is an economical option that significantly reduces thickening time and acts as an accelerator regardless of concentration, unlike many other accelerators. Offered in both anhydrous and 77% flake.

Calcium Nitrate

Calcium nitrate is used as an accelerator in cementing slurries while helping increase the overall strengths. Offered in both anhydrous and tetrahydrate forms.

Sodium Aluminate

Sodium Aluminate is a thixotropic additive designed to help control free water while promoting early strength development.

Colloidal Silica / Nano-Silicas

COLLOIDAL-SIL™ / GEO-SIL™

Colloidal silicas also known as nano-silica / Nano-sols are used as an accelerator in cement systems as they reduce thickening time of cement. Colloidal silica increases the compressive strength, helps with gas migration control at high temperatures, and decreases fluid loss by decreasing the permeability of set cement. COLLOIDAL-SIL™ and GEO-SIL™ for geo-polymer cementing applications are available in a variety of grades depending on use and application.

Recommended Grades

COLLOIDAL-SIL™

(NS6)15, (NS7)15 (NS7)15,(NS8)20, (NS8)20, (NS20)40, (NS20)40

GEO-SIL™

(NS6)15, (NS7)15 TDS

Calcium Sulfate Hemihydrate

Calcium sulfate hemihydrate can help reduce costs while improving the overall properties in thickening and set times in cement slurries.

Lithium Silicates - Engineered

Engineered lithium silicates are formulated with potassium methyl silicate (formulated as a film-forming additive to reduce shale hydration and filtration loss in the high-temperature drilling fluid for maintaining bore hole stability. These products can also function as accelerators. Available grades are Lithium Silicate (LS/PMS) and Lithium Silicate Hybrid (LPS/PMS) that is a lithium / potassium blended silicate and potassium methyl silicate.

ANTIFOAM AGENTS / DEFOAMERS

Polysiloxane Defoamers

Polysiloxane Defoamers can be added to cement slurries to inhibit foam formation and destroy existing foam. They are readily dispersible, stable in high temperature and pH. Available both a powdered and a liquid option.

Polyether Defoamers

Polyether Defoamers are non-toxic, non-ionic, and silicone-free defoamers that requires low loading and good compatibility with other additives for cement slurries.

Triisobutyl phosphate/Tributyl phosphate (TIBP/TBP)

Triisobutyl phosphate / Tributyl phosphate (TIBP/TBP) can be added to slurries to both inhibit foam formation and destroy existing foam. Both TIBP/TBP supplied in liquid concentrations.

Aluminum Stearate is used specifically as a Defoamer in any type of water based drilling fluids. It gives excellent properties of transparency, stringiness and water repellency. It acts as a high temperature resistant when added in lubricants while decreases surface and internal foam providing increased accuracy in measuring mud density by stabilizing rheological measurements.

CEMENT

Calcium Aluminate Cements (CACs)

Calcium aluminate cements (CACs) can be used as an additive or as the standalone cement in slurries as they impart higher overall compressive strengths, high early-strengths and biogenic corrosion resistance. We offer a full range of CACs (40-80% Al₂O₃).

Calcium Sulfo Aluminate Cements (CSAs)

The Calcium Sulfo Aluminate Cement (CSA) range incorporates various hydraulic cements, cement binders and pre-formulated products for making rapid setting and high early strength in cement slurries.

CORROSION INHIBITORS

ATMP

Amino trimethylene phosphonic acid (ATMP powder) is used as a corrosion inhibitor in oil & gas well cementing systems due to its ability to minimize scale growth and inhibit metal oxidation.

Calcium Nitrite

Calcium nitrite provides corrosion inhibiting and accelerating properties for cement slurries. Available in 92/94% powder and a 30/35% solution.

DISPERSANTS

Acetone Formaldehyde Sulfite / Sulfonated Acetone Formaldehyde (AFS/SAF)

Acetone Formaldehyde Sulfite / Sulfonated Acetone Formaldehyde (AFS/SAF) is a highly effective dispersant that improves flow properties and reduces the viscosity of cement slurries without the need for additional water and extended setting time. Ideal for use in high salt conditions.

2-Acryl-amido-2-methyl-propane Sulfonic Acid (AMPS)

AMPS (2-acryl-amido-2-methyl-propane sulfonic acid) monomers and AMPS polymers are dispersants that improve flow properties of cement slurries while increasing the fluid loss / gas migration properties in strength of the cement. We supply a range of AMPS based powders and solutions.

Melamine Formaldehyde Sulfonate

Melamine Formaldehyde Sulfonate is a polymer are effective as a dispersants in cement slurries by increasing the fluidity and the workability of the mix. It reduces the water content in cement and can act as a set retarder and accelerator depending on concentration used.

Polycarboxylate ethers (PCE)

Polycarboxylate ethers (PCE) are provide superior dispersing power & are dispersants used to regulate the fluidity and rheological properties. PCE molecules adsorb onto cement and evoke electrostatic and steric repulsive forces to mitigate agglomeration of fine particles.

Naphthalene Sulfonate

With excellent dispersing and wetting properties, naphthalene sulfonates have been a workhorse in of the building industry. Highly effective dispersant in slurries to improve the flow properties of the slurry, while reducing hydraulic horsepower requirements. Available as both a calcium and sodium salt, with a variety of sulfate grades available. Formaldehyde free grades are also available.

EXPANSION ADDITIVES

Calcium Oxide

Calcium oxide is used as an expansive additive in cement slurries to ensure zonal isolation and excellent bonding between the cement and the casing at low temperatures.

DB Dolomite

DB Dolomite Calcium oxide is used as an expansive additive in cement slurries to ensure zonal isolation and excellent bonding between the cement and the casing, while improving early strength developments and reduced gel strength times.

Dead Burnt Magnesium Oxide Magnesite

Dead burnt magnesite is used as a post set expansive additive in cement slurries to ensure zonal isolation and excellent bonding between the cement and the casing. It is ideal for use in temperatures above 85 °C. Various grades to meet your desired specifications.

EXTENDERS

Aluminum Powder & Paste

Aluminum powder help provide with expansion & gas migration control by generating small hydrogen gas bubbles. It can also increase the strength to density ratio of the cement. Available in a wide range of particle sizes of aluminum powder.

Attapulgate

Attapulgate, also known as palygorskite, can be used to reduce the overall density and thicken / viscosify. It serves as a more effective extender than bentonite in seawater or high-salt systems.

Bentonite

Bentonite is a colloidal clay mineral that can be used to thicken, reduce the specific gravity and reduce overall fluid loss. Bentonite can be used with other mineral based additives for optimal performance.

Microspheres - MICRO™ (CM) Ceramic Microspheres

MICRO™ (CM) Ceramic Microspheres also known as "Cenospheres", are thin-walled hollow ceramic spheres that can be used to modify rheology, reduce weight and shrinkage and improve thermal insulation of cement. We offer a range of microspheres ceramic microspheres .

Glass Spheres - MICRO™ (EFGS)

MICRO™ (EFGS) Expanded Foam Glass Spheres are ideally suited for lightweight cement systems. This lightweight aggregate is made from recycled glass and provides a chemically resistant, low density, resistant to pressure a thermal insulation additive. Also highly suited for use in construction - insulation, fireproofing and cement board.

Blast Furnace Slag

Blast furnace slag is used to produce lightweight cement and decrease permeability of cement.

Calcium Sulfate Hemihydrate

Calcium sulfate hemihydrate can be used as an extender in cement and has gas migration benefits. Various grades available to meet your desired specifications.

Expanded Clay Spheres

Expanded clay spheres are expanded spheres that have a honeycomb-shaped micro-structure, decreasing density and increasing buoyancy of a cement, increasing the cement's cost effectiveness and strength to density ratio.

Expanded Perlite

Expanded perlite is a porous volcanic glass containing entrained air that is used to reduce the specific gravity of an oil & gas well cementing system. It requires a bentonite and a large amount of water to be added to the cement slurry, otherwise the expanded perlite will separate and float to the surface.

Fly Ash (Class F) - F-ASH™

F-ASH™ is used to enhance cement workability and durability, reducing heat of hydration and water demand in oil & gas well cementing to help control thermal cracking and drying shrinkage as well as geopolymers.

Gilsonite

Gilsonite can be used to form high strength low density cement and can be used as a cost-effective option to cure lost circulation. Gilsonite can be used with bentonite to improve cement performance. Various grades of gilsonite available.

Glass Bubbles

Glass bubbles are low density hollow glass microspheres that have a high strength-to-density ratio, decreasing density and increasing buoyancy of a material making it a cost effective and water-resistant additive. It can be used as an additive to lightweight oil & gas well cementing systems as it reduces slurry density whilst maintaining workability and strength.

Metakaolin - MICROPOZZ™

MICROPOZZ™ Metakaolin is a pozzolan that is used as an admixture in oil & gas well cementing systems. Its benefits include lowering cement porosity, increasing long-term strength and improved corrosion resistance, especially at high temperatures (150 °C and above). Ideal for use in low density wells, deep hot wells, and acid rich wells and geothermal wells.

Rice Husk Ash

Rice husk ash is a pozzolan suitable for use in oil & gas well cementing systems as it reduces permeability, increases final strengths and general durability.

Silica Fume

Silica Fume increases cement compressive strength, reduces permeability, and can impart thixotropic properties. Available in both "densified" and "undensified" silica fume.

FLUID LOSS CONTROL ADDITIVES

AMPS Polymer Powder

AMPS polymer powders can be used to modify the flow properties of cementing systems and to control fluid loss & gas migration by reducing the permeability of the cement.

Super Absorbent Polymers (SAPs)

Super absorbent polymers (SAPs) such as sodium polyacrylate can be used to modify the flow properties of the cement and to control fluid loss, thus decreasing the permeability of the cement.

Cellulose Ethers - Method™

Method™ Cellulose ethers with extremely low addition rates can modify the flow properties of the cement and to control fluid loss, thus decreasing the permeability of the cement. These products can provide consistent viscosity, water retention, and suspension in low density slurries. We offer a full range of CHMECs, CMCs, MCs, HECs and HPMCs.

Poly Vinyl Alcohol (PVA)

Poly Vinyl Alcohol (PVA) powder is a non-retarding low temperature fluid loss/gas migration additive in light weight cement slurries that improves adhesion, flexural strength, workability and water retention of the cementing system. PVAs that are easily dispersed in water and form stable emulsions.

LOSS CIRCULATION ADDITIVES

Polyacrylonitrile (PAN) Acrylic LCM Fibers POLYACRYLON™

Polyacrylonitrile (PAN) Acrylic LCM Fibers effectively seal formation fractures and bond with the cement to increase mechanical properties (tensile strength, flexural modulus and stabilization), all while having minimal to no effect on the flow properties of the cement slurry.

Polypropylene (PP) Fibers - POLYACRYLON™

Polypropylene Fibers effectively help seal formation fractures while having minimal to no effect on the flow properties of the cement slurry. We offer a wide range of PP fibers.

E-Glass Chopped Strand Fibers

E-Glass Chopped Strand Fibers effectively help seal formation fractures while having minimal to no effect on the flow properties of the cement slurry. E-Glass Chopped Strand Fibers have a significant effect on reducing the porosity and the permeability of the base cement.

RETARDERS

Cellulose Derivatives - METHOD™

METHOD™ Cellulose derivatives such as HEC, CMHEC, CMC, MC can be used as set retarders & free water control agents in oil & gas well cementing systems. Other cellulose derivatives upon request.

Hydroxycarboxylic Acids - Citric, Tartaric, and Sodium potassium tartrate

Hydroxycarboxylic acids are used as retarder enhancers to improve rheological properties and reduce the set times & viscosity of cement without the need for additional water. We offer the following:

Citric acid (Powder and Liquid)

Tartaric acid

Sodium potassium tartrate

Lignosulfonates - LIGNOSIL™

LIGNOSIL™ Lignosulfonates are used to reduce the set time in cement and also helps increase the overall compressive strength of cement.

Phosphonate Retarders

We offer a range of powder phosphonate retarders, including ATMP, which improve flow and workability upon addition of low concentrations. Phosphonate retarders also perform well at high temperatures and increase concrete strength.

Sodium Potassium Tartrate

Sodium potassium tartrate can be used as an extremely strong cement retarding agent in oil & gas well Portland cement-based systems. Typically used in CSA cement systems as a retarder.

VISCOSIFYING AGENTS

Xanthan Gum & Welan Gum

Xanthan gum and welan gum can be used to modify the viscosity & suspension properties of cement.

WEIGHTING MATERIALS

Hematite

Hematite is used as a weighting material to increase the cement slurry density due to its high specific gravity (4.9 - 5.3). Hematite's fine particle size reduces abrasion on equipment and increases the compressive strength of cement more than most other weighting materials.

Ilmenite

Ilmenite increases the cement slurry density due to its high specific gravity (4.5 - 5). Ilmenite with a fine particle size prevents abrasion on equipment, minimizes solid segregation while maintaining above the acceptable cement strength for deep well operations.

Hausmannite (Manganese Oxide)

Hausmannite (Manganese Oxide) is increasingly being used in oil & gas well cement systems as a weighting material due to its unique properties. It has an average particle size smaller than cements, allowing its particles to fit within the cement matrix, displacing entrained water, resulting in a lower viscosity and more stable slurry.



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