



Ready Mix Concrete

High Performance Rheology Modifier and Mix Stabilizer

Product Description

Acti-Gel® 208 is a low-dose rheology modifier and anti-settling agent that stabilizes mixtures, provides superior aggregate suspension, and dramatically improves the performance and paste quality of concretes. When fully dispersed, Acti-Gel® 208 particles form a unique lattice 'microstructure' that supports slightly higher yield stress and thixotropy, resulting in a greater ability to suspend both cement particles and aggregate with reduced segregation and bleed. Under conditions of shear, flow conditions are enhanced resulting in improved pumpability and workability. Some designs may result in a reduction in measured slump.

Acti-Gel® 208 is made from a highly purified Mg-aluminosilicate using a patented process. It is non-swelling and shear stable in both low and high salt environments and between pH 2-13.

Acti-Gel® 208 is neutral setting and will not affect set time, air content or color.

Acti-Gel® 208 complies with ASTM C 494, Type S.

Packaging

Acti-Gel® 208 is available in liquid or powder form.



Applications:

- Self-consolidating concretes (SCCs)
- Grouts
- Shotcrete
- Slip-form pavements
- Deep foundations / piling
- Lightweight
- Other concrete applications

Benefits:

- Unsurpassed concrete stability
- Suspends both coarse and fine particles and manufactured or gap-graded aggregates
- Reduces unwanted bleeding
- Improves surface finish; dramatically reduces voids / bug holes
- Superior cohesion and adhesion for low rebound shotcrete; thicker applications and higher lifts
- Dramatically reduces airborne particles in shotcrete
- Higher green strength for shape stability in slip-form
- Reduced formwork pressure in SCC applications
- Improves consolidation
- Greatly improved truck clean-out
- Advanced anti-washout properties

Performance

Acti-Gel® 208 is a thixotropic material that suspends particles, reduces segregation, and dramatically stabilizes concretes. During mixing or emplacement flow is greatly enhanced due to its shear-thinning behavior. On removal of shear, the rate of thixotropic rebuilding of the lattice structure is exceptionally fast, which provides i) superior cohesion, ii) rapid development of green strength and shape stability, iii) excellent anti-washout properties, and iv) reduction in hydrostatic pressure.

When used in an optimized mix design, Acti-Gel® 208 has been shown to increase green strength, decrease rapid chloride permeability, and reduce efflorescence – all with outstanding stability and compaction. **Please contact your local representative for recommendations.**

Typical Physical Properties:

• Viscosity – Dispersion, cps	4,200
• Free Moisture, wt. % @ 220°F (104.4°C)	9.0
• Residue (Wet), % retained on 325 mesh screen	0.01
• pH	7.0 - 9.5
• Density of Solid	2.287 g/cm ³
• Color	Pale Yellowish Brown to Gray

Typical Chemical Analysis:

• SiO ₂	55.2%
• Al ₂ O ₃	12.2%
• Fe ₂ O ₃	4.05%
• TiO ₂	0.49%
• CaO	1.98%
• MgO	8.56%
• K ₂ O	0.68%
• Na ₂ O	0.53%
• P ₂ O ₅	0.65%
• LOI	15.66%

Guidelines for Use

Acti-Gel[®] 208 can be added in the mixing sequence at various stages depending on the application, using a recommended dry dosage of ~2.5 lbs. per yd³ or ~1 gallon per yd³. **Please contact your local representative for recommendations** and to schedule a free on-site plant trial.

Optimizing Acti-Gel[®] 208

The performance of Acti-Gel[®] 208 is dependent on mix proportions, local materials, cement chemistry, fineness of materials, and w/c ratio. Potential mix designs for specific applications should be evaluated using actual project materials to ensure that the chosen mix design meets project specifications. **Please contact your local representative for recommendations.**

Product Data Sheet, Rev. Jan 2017

Recommendations and advice concerning dosages, application, performance, and use is provided in good faith, based on our testing, experience, and knowledge of the product under normal conditions. All claims based on performance are believed to be accurate. No guarantee, either expressed or implied, is made with reference to the infringement of any patent. These values represent typical data from samples taken from production batches. They are not considered to be specifications. Results may vary depending upon equipment and procedures. The user of these materials is responsible for determining its suitability for their application with different materials and actual site conditions.