

GlucoSol® 621

GlucoSol® 621 is a new entry in the Chemstar water-soluble product line. It is a highly substituted natural polysaccharide designed to impart enhanced functional properties including: solution stability, salt tolerance, surface activity, water retention, improved rheology and viscosity.

GlucoSol® 621 offers a unique alternative to competitive natural and synthetic water-soluble polymers

Advantages

- Rheology modification
- Thickening
- Water retention
- Anti-sag
- Bond/Adhesion
- Open time/ Working time
- Enhanced workability, slip
- Decrease stickiness
- Crack Resistance
- Surface Hardness
- Extended Coverage

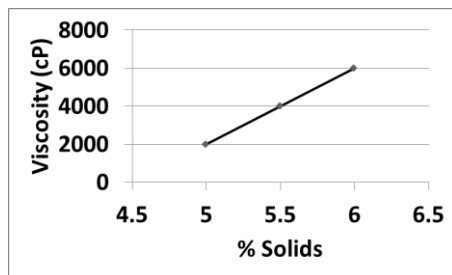
Main Applications

- Quick Sets
- Joint Compounds
- Spray Textures
- Plasters

Appearance

GlucoSol 621 is an off-white powder. Aqueous solutions are translucent and demonstrate excellent stability

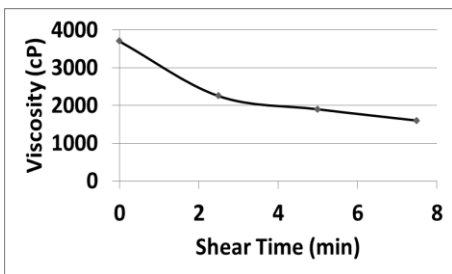
Effect of Solids Concentration on Viscosity



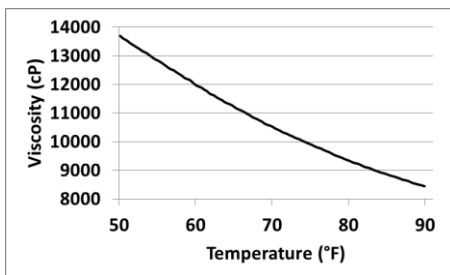
Solution Preparation

GlucoSol 621 is readily soluble in water with rapid hydration. Sufficient agitation is necessary to avoid excessive lumping of the polymer as it is added to the solution. The time and amount of agitation required for complete hydration of the polymer will vary with solids concentration and water make-up temperature.

Effects of Shear on Viscosity



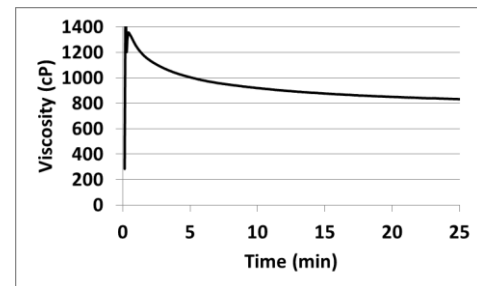
Effect of Temperature on Viscosity



Solution Preservation

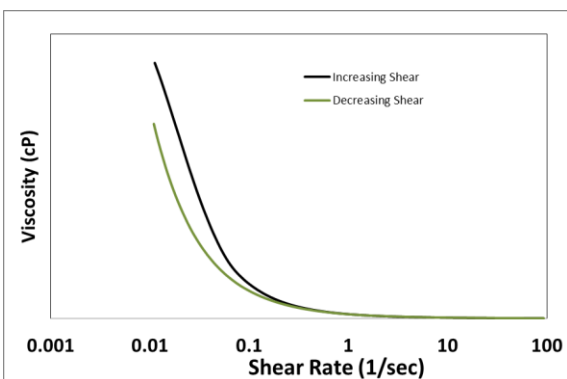
The chemical substitution of GlucoSol 621 provides enhanced solution bio-stability. Extended storage could result in viscosity reduction due to microbial or enzymatic attack. Stored solutions should be protected by the use of a preservative. GlucoSol 621 is also available with a preservative treatment.

Hydration Profile



Thixotropy

Solutions of GlucoSol 621 exhibit near pseudoplastic behavior. Viscosity decreases with increasing shear and when the shear is removed the original viscosity is immediately recovered. Thixotropic solutions regain their original viscosity with a time element



Storage, Handling, and Safety

GlucoSol 621 exhibits excellent storage stability if kept dry in its original package. Shelf life can be affected by storage conditions such as temperature, humidity, and overall surroundings of the storage area. A Safety Data Sheet is available and should be consulted prior to handling or use.

Availability

GlucoSol 621 is available in 50 lb. multi-wall poly-lined paperbags or 2000 lb supersacks for truckload and LTL shipments. Please contact Chemstar for additional information, samples or technical assistance in using this or any other Chemstar product.

Typical Analysis

GlucoSol 621	
Viscosity (cP), 6% Solids LVT, 60 RPM, #4 Spindle	3500 – 5000
Percent Moisture (%)	10 max
Bulk Density (lb/ft ³)	30 – 40
Particle Size (% thru)	95 min (-) 105 micron

Typical Addition Rates

GlucoSol 621	
Joint Compound	0.10 – 0.50

Disclaimer: The information contained in this bulletin is correct to the best of Chemstar's knowledge and is intended only as a source of information. The recommendations or suggestions herein are made without guarantee or representation as to the results. In addition, Chemstar suggests that you evaluate the recommendations contained in this bulletin in your own laboratory prior to use. Chemstar's responsibility for claims arising from breach of warranty, negligence or otherwise is limited to the purchase price of the material. No statement in this bulletin is to be construed as violating any copyright or patent.

