

# Welan Gum

Cat. No. GEA-506

Lot. No. (See product label)



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## Product Name

Welan Gum

## Product Overview

Welan Gum is an anionic polysaccharide with excellent thermal stability and retention of viscosity at elevated temperatures. Welan Gum exhibits superior temperature stability over 200 °F in fresh water and low pH fluids. Fritz Welan Gum is a tan colored dry powder with a density of 26.25 lbs/ft<sup>3</sup>. Welan Gum is used in various industries where high molecular weight biopolymers are useful. A short list of products containing Welan Gum include various oilfield applications, foundry coating, pigment suspensions, cement or concrete viscosifiers, tire sealants and paint thickeners. CAS NO. 96949-22-3.

Features: 1. Soluble in cool water; 2. Good suspending ability; 3. Good acid stability; Stable from pH 2-12; 4. Gels can be formed by NaOH under heating procedure; 5. Heat stability; 6. Can combine well with other hydrocolloids.

## Applications

Because of the shear thinning effect and excellent rheological properties of Welan Gum, it mainly is used in all aspects of industry and agriculture as a thickening agent, suspending agent, emulsifier, stabilizer, lubricants, and adhesives. It also has a wide application prospect in food, concrete, oi, ink and other industries.

1. In the food industry, Welan Gum can be used in bakery products, dairy products, fruit juice, milk beverages, sugar, icing sugar, jam, meat and all kinds of desserts processing;

2. In the industry, Welan Gum can be used for deployment of drilling mud in order to maintain the viscosity of water-based drilling fluid and control its rheological properties. Welan Gum is also a new type of oil displacement agent used for tertiary oil recovery wells. Deploying aqueous solutions of Welan Gum with the right concentration injection into the wells, and putting the pressure into the oil reservoir, it can greatly improve the oil recovery rate. In addition, Welan Gum can also be used in flow improver of completion, workover, stratum fracture, and heavy oil transportation;

3. Welan Gum can also be widely used in cement and concrete, and enhance the water retention of mud, and it does not need to use dispersants like other additives when used as the water retention agent. Welan Gum can increase the plasticity, suspension amount, air content, and ability of anti-subsidence and flow characteristics and anti-dehydration of cement. These characteristics of improvements remain unchanged when the temperature increases. Compared with other additives, Welan Gum with the lower concentration can achieve a very good effect.

## Notes

Main specifications:

Appearance: Off-white to tan powder; High temperature performance: 120 degrees Celsius; Acid resistance: This product and citric acid can be used together, function is not affected; Solubility: Hot or cold water; Viscosity (1% Gum to 1% KCl Brookfield, LVT, 60 rpm, spring 3, 25 Celsius): Min.1500 mPa.s; Bolling point (Celsius): 137-138; Loss on drying: Max.13.0%; Residue on ignition: 5%; pH (of 1% solution): 5.0-9.5; Particle size: 95% through 80 mesh.

## Storage

Stored in dry, cool, at room temperature and shaded place.

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**FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY**