Polyanionic cellulose short for PAC, It is a water-soluble cellulose ether derivative prepared by chemical modification of natural cellulose. Polyanionic cellulose is very common Water soluble type cellulose, Main application is oild drilling

Polyanionic cellulose has Multiple application, It can be used in all industries where <u>carboxymethyl</u> <u>cellulose</u> (CMC) can be used, providing more stable application performance,

Polyanionic cellulose can be used in Textile industry, Paper Industry, It can be used as a fluid loss reducer, tackifier in the drilling industry, In addition, in the fine chemical processing of paint, food, cosmetics, ceramic powder, leather, etc., as a thickening agent, emulsion stabilizer, crystal formation preventer, thickener, binder, suspending agent, water retaining agent, and dispersing agent

1. High degree of substitution

2. Heat resistance stability: the performance of the aqueous solution is stable below  $80^{\circ}$ C, when the temperature is close to  $150^{\circ}$ C, it can still show a certain viscosity for 4 hours.

3. Acid and alkali resistance and salt resistance: PH value is stable in the range of 3-11, and can be used in various polar environments.

4. Good solubility: it can be dissolved in both cold water and hot water faster with simple stirring equipment; PAC dissolves faster in hot water, ;instant PAC can be fully dissolved in a few minutes, improving the convenience of use and production efficiency.

5.Good stability: PAC water solution has light stability, longer shelf life; strong anti-bacterial mildew performance, no fermentation.

6. Polyanionic cellulose can be used for deep well and high temperature downhole operations.

