

PRODUCT DATA SHEET

G401 Expanding Additive for Oil Well Cementing**Product Description**

G401 expanding additive for oil well cement is of the cement hydration products, which can compensate for the grout (stone), shrink and produce volume micro-expansion. It is conducive to anti-channeling, compress cement porosity and improve the pores' distribution, thus to achieve the goal of improving strength and reducing the permeability rate. And in restricted state, enhancing the product's prestress and improving the bond strength of cement is good for preventing corrosion of the cement and casing pipes, and controlling loop current. G401 has a good compatibility with other additives, and does not affect the other properties of slurry. It has a wide scope of temperature allowance (25 ~ 150 °C) and a good performance on salt tolerance.

Characteristics

- Normal dosage: 2%~3% (BWOC).
- It has no adverse effects on thickening time, rheological properties and the free water, and has significantly improved compressive strength.
- It is suitable for cement slurry with normal and low density of cement slurry.
- It is applicable for the wells with irregular enlarged diameter of well holes, and can adjust the balance pressure in deep wells, and anti-channeling and balance pressure during cementing wells. It can apply to high pressure cementing with active oil and gas.
- It is preferred to be mixed without water.

Technical Specification

Items	Specification
Appearance	No hardened particles or powder
Water content,%	≤8.0
Fineness (0.315mm sieve),%	<8.0
Thickening time, min/149 F,35MPa,30min	≤120.0
Expansion ratio (%), Plastic state(75 °C, 0.1Mpa)	≥0.10
Expansion ratio (%),Cementation station (75 °C, 0.1MPa,24h) (Ex—Ex ₀)	0.01~0.80
Compression strength, MPa/75 °C, 0.1MPa,24h	≥14.0

No.1 The experimental conditions: G class: cement, W/C: 0.44; Water quality: distilled water; Dosage of G401: 2.0% (BWOC)

No.2 The plastic state' expansion ratio is the cement slurry initial set' expansion ratio

No.3 Ex₀:Expansion ratio(the cement slurry without G401), Ex₀:Expansion ratio (the cement slurry with G401)

Packing, Storage

- Packed in tri-layer paper bags with polyethylene liner, 25kg/bag.
- Placed in dry, ventilated, shady and cool circumstance. Be kept away from harmful substance in store and transportation.
- Its storage life is two years.

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