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Medium Temperature Retarder NHGH-I

Product Description

NHGH-I can adhere to the surfaces of cement hydrate to inhibit the contacting between cement and water, also stick to the surfaces of crystal nucleons of cement hydrate to prevent their enlarging. Therefore, it can retard hydrating of cement slurry.

Characteristics

- With a composition of cellulose derivative and hydroxycarboxylic acid and multiple of other compounds.
- Normal dosage: 0.1% ~1.0% (BWOC). It functions better if combining with USZ friction reducing additive when middle-deep well is cemented.
- It can reduce the consistency and improve the rheology of cement slurry.
- To retard the thickening time efficiently.
- Applied in the oil/gas wells with less than 110℃ of bottom hole temperature .
- Drying mixing method.
- Non-toxic, ordorless and non-corrosive

Technical Data

• Appearance	Light yellow powder
• Moisture, %	≤10.0
• Fineness (0.315 mm mesh)，%	≤10.0
• Initial consistency, Bc/80℃.46.5MPa.45min	≤30
• Thickening time's adjustment	Adjustable
• Thickening Linear	Normal
• Free Fluid, %	≤1.4
• Compression strength, MPa/102℃.21MPa.24h	≥14

The cement slurry formulation: G class cement NHGH-1 :0.1% ~1.0% +, W/C:0.44 + distilled water.

Packaging, storage

- Sacked with three-layer plastics bag, 25kg per bag
- Store in cool and dry situation.
- Storage lifetime is two years.

High Temperature Retarder NHGH-II

Product Description

NHGH-II can adhere to the surface of the hydrate of cement slurry to inhibit contacting with water and chelating with Ca^{2+} to prevent crystal nucleus from forming early. Therefore, it can retard thickening time.

Characteristics

- With a composition of sulfonate and organic acid, and multiple of other compounds.
- Normal dosage: 0.7% ~2.0% (BWOC)
- Applied temperature: 110℃~170℃(BHCT)
- To extend the thickening time and enhance pumping rate, in medium to deep well or deep well; to configure the right-angle thickening cementing system.
- To reduce the cement consistency and improve rheology of cement.
- Dry mixing method normally.

Technical Data

Appearance	Brown powder
Moisture, %	≤10.0
Fineness (0.315mm mesh), %	≤10.0
Initial consistency, Bc	≤30
Thickening time adjustment, 120℃.73.9MPa.61min	Adjustable
Thickening Linear	Normal
Free Fluid, %	≤1.4
Compression strength, MPa/144℃.21MPa.24h	≥14

Packaging, storage

- Sacked with three-layer plastics bag, 25kg per bag
- Store in cool and dry situation.
- Storage lifetime is two years.

HIGH TEMPERATURE RETARDER 310S

SUMMARY

Applicable in high temperature system upto 120℃.
Suitable for dry mixed and has no special requirement on the quality of mixing water.
Good top strength when used in long formation sealant of well cementation.
Not easy to damp and cake and has long expiration period.

SPECIAL ATTENTIONS

May influence the top strength of the set cement when the curing temperature is lower than the bottom hole cycle temperature.

PHYSICAL AND CHEMICAL INDICATORS

Appearance Bulk Density g/cm 3 Water-Solubility 0.315mm Sieve (45 mesh) Residues %
Gray powder 1.20±0.10 partly ＜12

Item Test Condition Technical Indicator

Initial consistency, Bc
120 o C/61min, 73.9MPa
≤30
40-100Bc thickening time, min ≤40
Thickening time adjustability Adjustable
Thickening curve Normal
Free fluid, % ≤1.4
24h compressive strength, MPa 120 C, 20.7MPa ≥14
Composition: API Class G(HSR) 600g; silica flour 210g(35%);silica fume 36g(6%);mixed water 342g;defoamer 1.8g(0.3%); NHRT310S.

Remarks: The dosage is determined under the precondition of adjusting the thickening time range of cement slurry at 120 o C to 170—330 min.

APPLICATIONS

Application temperature: generally 194-302 o F(90-150 C) (BHCT).
Dosage: 1.0-5.0% (BWOC).

PACKING and IIFE TIME

It is packed with 25kg bag. It can also be packed according to user requirements.