

GENERAL INFORMATION

Applied Chemical Technologies Coiled Tubing Cement Kits are adaptable to well conditions from 80° F to 300° F. The Coiled Tubing Cement Kits are designed and tested specifically for optimum performance in coiled tubing cementing operations. The Coiled Tubing Cement Kit contains Class H Cement plus a dry proprietary blend, which is mixed in our Gulf Coast facility yielding a thin, mixable slurry with excellent surface pumpability and exceptional downhole strength and slurry stability.

PHYSICAL PROPERTIES

Yields:	3 bbls
Density:	16.2 ppg
Yield:	1.10 cuft/sk
Mix Water:	5.65 gals/sk
Total Water:	66 gals

CHEMICAL DESCRIPTION

Each Coiled Tubing Cement Kit is custom to each job parameter and situation. If special properties are required, the Coiled Tubing Cement Kits are engineered and designed to those conditions. When temperatures are above 230°F each Coiled Tubing Cement Kit is supplied with fine silica for strength retrogression prevention. The dry blended proprietary package includes a wide utility fluid loss agent, dispersant, and an anti-settling agent. The combination of these chemicals provide a thin, easily mixable and pumpable slurry at surface, excellent downhole fluid loss control, strength stability and a controlled thickening time. High or Low temperature liquid retarder is supplied with each Coiled Tubing Cement Kit for thickening time control that is dependent on the temperature application and based on actual laboratory testing.

RECOMMENDED USES

Coiled Tubing Cement Kits are typically used at temperature levels of 80° F to 300° F. If the well-bore conditions dictate a temperature above 300°F, then special laboratory testing will be performed to acquire the correct retarder loading for a controlled thickening time.

PACKAGING

Coiled Tubing Cement Kits are furnished in bulk cement super sacks dry blended with the proprietary package of chemicals and then heat-shrunked on a pallet for delivery. Applied Chemical Technologies provides custom blending if special blends or volumes are requested.

AVAILABILITY

Coil Tubing Cement Kits are conveniently warehoused on the Gulf Coast, in Broussard, LA for quick and easy pickup or delivery 24 hours/day 365 days/year

APPLIED

CHEMICAL TECHNOLOGIES

1/1/2014

Coiled Tubing Kit Laboratory Testing Report

PROJECT #: 14-5027
 WELL NAME: Multiple Wells
 CUSTOMER:
 CONTACT:
 JOB TYPE: CT Squeeze/Plug
 MD: 10000
 TVD: 10000
 FIELD:

BHCT:
 BHST: 217
 BHSqT: 185
 MUD TYPE: Lease
 MUD WT: 9
 SPACER: Lease
 SPACER WT: 9

Cement- 3 BBLS Lehigh Class H Concentration 94 #/sk Units

CT Plug

Function-	Additives-	Water-	Concentration	Coiled Tubing Kit
Fluid Loss	CFL-18	Fresh	4.54 gal/sk	69.43 gal/kit
Dispersant	CD-37	Total Mix	4.54 gal/sk	69.62 gal/kit
Anti Settling	CASA-51	Slurry Density-	16.20 ppg	
Retarder	CR-100L 1.50 gal/kit	Slurry Yield -	1.09 cuft/sk	
Foam Preventer	CFP-90L 0.15 gal/kit			

Results

Measured Density -

Slurry(ppg) -
 Spacer(ppg) -
 Mud(ppg) -

16.20

Free Fluid -

Test Temp(°F):
 Measured (mL) :
 Free Fluid (%) :

185

0

0.0

Thickening Time Test -

BHCT -
 75%:25% Contaminated -
 Other Thickening Times

40 Bc at 70 Bc at

Compressive Strength -

Test Temp. (°F) -

217

50 psi at - 7:54
 500 psi at - 8:56
 1765 psi at - 12 hrs
 3904 psi at - 24hrs
 psi at - 48hrs
 psi at - 72hrs

Static Fluid Loss-

Test Temp(°F) -
 Collected fluid (ml.) -
 Time (min.) -
 API Fluid Loss(ml/30min) -
 Calculated API (ml/30min)-

185

23

30

46

-

Top of Liner Compressive Strength -

Test Temp. (°F) -

50 psi at -
 500 psi at -
 psi at - 12 hrs
 psi at - 24hrs
 psi at - 48hrs
 psi at - 72hrs

Comments/ Recommendations:

COILED TUBING PLUG

ADD TOTAL FRESH WATER REQUIREMENT TO BLENDER. ADD TOTAL CR-100L(LOW TEMP RETARDER) WHILE BLENDING. ALLOW TO BLEND WITH FRESH WATER USING TURBULENT ACTION. BEGIN ADDING DRY CEMENT TO BLENDER.

Rheology(°F)-	80°F											
Rpm -	300	200	100	60	30	6	3	PV	YP	10 Sec Gel	10 Min Gel	
Cement	220	151	109	66	22	15	8	167	54	13	29	
Spacer												
Mud												

Rheology(°F)-	185°F											
Rpm -	300	200	100	60	30	6	3	PV	YP	10 Sec Gel	10 Min Gel	
Cement	201	125	99	64	23	9	3	153	48	12	32	
Spacer												
Mud												

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