

**TECHNICAL SPECIFICATIONS SHEET OF**  
**LOW TEMP. CEMENT RETARDER**

**ANNEXURE-I**

Retarder is a chemical agent that inhibit hydration and used to increase the thickening time of cement slurries to enable proper placement. The need for cement retardation increases with depth due to greater time required to complete the cementing operation and the effect of increased temperature on the cement setting process.

The item mentioned in the attached indent is Low Temperature Range Retarder for Cement (Temperature Range BHCT 35-80<sup>0</sup> C) which is used to design and prepare slurries of different types with various specific gravities. The technical specifications of the quoted item have been elaborated in the indent; however, the detail of packaging is given below.

**PACKAGING AND MARKING OF RETARDER**

**A. PACKING/PACKAGING:**

- Must be packed in **50 or 55 lbs.** Net export quality bags.
- The bags must have 04 Kraft paper layers plus 02 heavy inner asphalt laminated layers for water proofing.
- The consignment must be palletized, shrink wrapped and strapped in the maximum capacity of 1.0 M.TON material per pallet.

**B. MARKING**

Each "Sack/Bag" should have clear legible marking as given below;

- Name of the Product.
- Name of the Manufacturer.
- Date/month/ year of manufacture.
- Lot No./ Batch No. \_\_\_\_\_
- Shelf Life.

**C. NECESSAERY DATA**

Sr. No.	DESCRIPTION	
1.	A	Name of Bidder
	B	Name of authorized signatory of bidder
2.	Complete address, telephone, e-mail and fax number of bidder	
3.	A	Name of Manufacturer
	B	Complete address, telephone, e-mail and fax number of manufacturer
4.	Minimum shelf life Certificate from Manufacturer	
6.	Physical Appearance (Material should be free flowing powder free from dirt and visible impurities)	
7.	Clean Acceptance(Signed/Stamped) ANNEXURE I,II,III & IV of TOR's by Bidder	
8.	Material Safety Data Sheet	
9.	Material Specification Sheet	

## TEST FOR QUALITY EVALUATION OF LOW TEMP. RETARDER

- A. A chemical additive used to increase thickening time of cement slurries that may have a limited pumping time.
- B. Cement slurry setting time can be adjusted with retarders. Cement retarders control the time when a slurry will set hard, keeping the slurry viscous and pumpable in expected wellbore temperatures and for the amount of time required to place the slurry. Retarders decrease the rate of cement hydration.

### EVALUATION CRITERIA

#### 1. Technical Evaluation based on Dosage:

Technical evaluation will be based upon allowable dosage limit as described below

S.No	Description	Maximum Allowable Dosage (%BWOC)	
		50°C	80°C
1	Low Temperature Retarder	0.3%	0.7%

**Note:**

- For the preparation of slurries mentioned in below "Table C" if any of the additive taking dosage more than maximum allowable dosage then it will be considered as Technically Non-Responsive.

#### 2. Financial Evaluation Format based on Dosage & Quoted Rate:

Financial Bids of only technically responsive bidders will be opened and the financial evaluation will be based on the dosage used in Lab Tests mentioned in below "Table C" & quoted rate, according to below formula.

Bidder Name	Dosage of Additive based on OGDCL lab results (%BWOC) for Cement Slurry of SG=1.90	Lbs per bbl of slurry	Quoted Rate per Lbs of additive	Cost per Lbs of additive based on dosage
1	A	D	G	$J=D \times G$
2	B	E	H	$K=E \times H$
3	C	F	I	$L= F \times I$

**Note:**

- Technically responsive and financially lowest bidder will be awarded Purchase Order.

C) **LABORATORY TESTING**

For the evaluation of quoted cement retarder, following tests will be done.

**"TABLE C"**

S.NO.	COMPOSITION		RESULTS
01	i. Cement Class "G" ii. Water iii. Fluid Loss Additive iv. Dispersant (TIC) v. <b>Retarder</b> vi. Defoamer	: 100 Parts : 44 % age BWOC : % age BWOC : % age BWOC : % age BWOC : % age BWOC	<ul style="list-style-type: none"> <li>➤ Solubility: Should be freely soluble in fresh water.</li> <li>➤ Consistency: Consistency of cement slurry should remain below 20 Bc for period equal to at least 75% of thickening time in HTHP Consistometer.</li> <li>➤ SG: 1.90 (15.8 PPG)</li> <li>➤ <b>Settling at Room Temp:</b> Should not cause settling of cement particles</li> <li>➤ <b>Settling &amp; Gelation at BHCT 50°C:</b> Should not cause settling or gelation of cement particles in slurry</li> <li>➤ Thickening Time at <b>BHCT 50° C</b> &amp; Pressure <b>2500 Psi:</b> 05-06 Hrs.</li> </ul>
02	i. Cement Class "G" ii. Water iii. Fluid Loss Additive iv. Dispersant (TIC) v. <b>Retarder</b> vi. Defoamer	: 100 Parts : 44 % age BWOC : % age BWOC : % age BWOC : % age BWOC : % age BWOC	<ul style="list-style-type: none"> <li>➤ Solubility: Should be freely soluble in fresh water.</li> <li>➤ Consistency: Consistency of cement slurry should remain below 20 Bc for period equal to at least 75% of thickening time in HTHP Consistometer.</li> <li>➤ SG: 1.90 (15.8 PPG)</li> <li>➤ <b>Settling at Room Temp:</b> Should not cause settling of cement particles</li> <li>➤ <b>Settling &amp; Gelation at BHCT 80°C:</b> Should not cause settling or gelation of cement particles in slurry.</li> <li>➤ Thickening Time at <b>BHCT 80° C</b> &amp; Pressure <b>8000 Psi:</b> 05-06 Hrs.</li> </ul>

**Note:** Slurry will be designed/tested with OGDCL's available additives.

03. **Hygroscopic Test:**

Indented material should not become damp and cakey or form lumps when exposed to air. This property will be verified by keeping material in open environment at room temperature for 24 Hrs.

## ANNEXURE-III

### Schedule of Requirement

#### Description and Quantity Requirements:

Sr.No.	Field	Quantity	Description
01	Oil & Gas Development Company Ltd Cement & Stimulation /Logistic Field Kot Sarang	3.0 M.Ton	Retarder is a chemical agent that inhibit hydration and used to increase the thickening time of cement slurries to enable proper placement. The need for cement retardation increases with depth due to greater time required to complete the cementing operation and the effect of increased temperature on the cement setting process.  (1/2 kg of Retarder sample should be supplied for lab testing at the time of bid opening).


#### The bidders should submit their quotations as per below format:

Sr.No	Item Description	UOM	Unit Price (Inclusive of all applicable taxes excluding's GST)  (PKR)	Total Amount Without GST  (PKR)	(Inclusive of all applicable taxes Including GST)  (PKR)	Grand Total (Inclusive of all applicable taxes Including GST)with GST (PKR)	Delivery Location
01	3.0 M.Ton Low Temp. Retarder for cement slurry	M.Ton	Filled by bidder	Filled by bidder	Filled by bidder	.....	Oil & Gas Development Company Ltd Cement & Stimulation /Logistic Field Kot Sarang


**Terms and Conditions for Purchase of 03 M.Ton Low Temp.Retarder**

1. All submitted bids will be evaluated strictly as per TORs of web tender.
2. The quantity of indented material is tentative & can be **increased/ decreased** at the time of finalization of case according to the requirement.
3. **Delivery period** for the quoted material is **Sixty (60) Days after issuance of LOI**; OGDCL can amend delivery schedule as per operational requirements.
4. **Minimum Shelf life** of the quoted material should not be less than **02 years** after delivery.
5. Temperature Range for Cement Retarder is **35- 80<sup>o</sup> C (± 05<sup>o</sup>C)**.
6. Quoted material should be **Non-Hygroscopic** in nature.
7. Quoted material should be **Compatible** with OGDCL Chemicals.
8. The bidder must have to provide the **1/2 Kg** sealed sample of quoted material along with Technical Bid at the time of bid submission. Without the submission of sample bid will not be entertained.
9. All samples would be in sole custody of OGDCL and lab analysis of these samples would be carried out at OGDCL own lab with OGDCL Lab Chemicals.
10. Acceptance of OGDCL lab results will be binding over the bidders and bidder cannot challenge the results of its competitor bidder's samples.
11. Material will be accepted after the physical inspection & OGDCL's lab evaluation report of the random sample drawn by the inspection committee from the material delivered at OGDCL Store.
12. On receipt of the material, if it is found substandard after testing/use, then the supplier shall have to lift the entire rejected consignment and replace the substandard material with the material conforming to the tender specifications at his own cost within Fifteen (15) days.
13. If any of the information provided by the bidder proves wrong or any counterfeited/unlawful document is submitted to mislead department, OGDCL reserves the right to disqualify such bid without further assigning any reason.
14. The quotations should be sent to **Oil & Gas Development Company Ltd Logistic Field Kot sarang C/O TCS Office Talagang District Chakwal Punjab** in closed envelope addressed to Operation Manager.
15. Only registered firms can submit their bids having NTN and STRN numbers.
16. The quotes will be opened on the date as mentioned in the tender notice; the bidder can send his representative to the site.
17. Surety bond of **RS. 1,00,000/=** will be submitted at the time of bid submission by bidder in favor of Operation Manager Logistic Field Kot Sarang.

18. After awarding the Local Purchase Order to the successful bidder, the material will be delivered at "Oil & Gas Development Company Ltd Logistic Field Kotsarang District Chakwal Punjab."
19. The payment will be made through cross cheque after receiving & Inspection of complete shipment.

  
TARIQ IQBAL  
20/05/22

**TARIQ IQBAL**  
I/C-CSB  
KOT SARANG

  
20-05-22

**MUHAMMAD FAYYAZ**  
OM (LOG/CMT/STIM)  
BASE  
KOT SARANG