



# TEXAS-LEHIGH CEMENT COMPANY



Evaluation tests for:  
TLC API Class A Well Cement - Buda, Texas Plant

Typical Performance Data: Grind # 220401 -- A Prod date: 1-31 March 2022 Silo No. 12,9

### Chemical Analysis(%) (ASTM C114)

| <u>SiO2</u>             | <u>Al2O3</u> | <u>Fe2O3</u> | <u>CaO</u> | <u>MgO</u> | <u>SO3</u> | <u>LOI</u> | <u>Na2O</u> | <u>K2O</u> | <u>Na2O<br/>Equiv.</u> | <u>Insol.<br/>Residue</u> |     |
|-------------------------|--------------|--------------|------------|------------|------------|------------|-------------|------------|------------------------|---------------------------|-----|
| 20.2                    | 5.1          | 2.2          | 64.4       | 1.3        | 3.7        | 3.2        | 0.2         | 0.9        | 0.7                    | 0.65                      |     |
| API 10A<br>Spec., max., |              |              |            | 6.0        | 3.5        | 3.5        |             |            |                        |                           | 1.5 |

### Calculated Compounds(%) (API Spec. 10A, Table 1)

| <u>C3S</u> | <u>C2S</u> | <u>C3A</u> | <u>C4AF</u> |
|------------|------------|------------|-------------|
| 61         | 12         | 10         | 7           |

### Physical Parameters

#### Fineness

Blaine-m2/kg (ASTM C204) 363 API 10A Spec. -- 280 min.  
M-325(% Passing) (ASTM C430) 75.6

### Thickening Time and Compressive Strength(46% H2O - neat slurry)

API Schedule 4-Csg Depth ft. 6000 Bottom Hole Circulation Temp 113 Deg F H2O 5.19 gal/sk

| <u>Consistency Bc</u> |                |               |               | <u>Thickening Time</u> |               | <u>Compressive Strength<br/>8 hr/24hr - atmos. press. PSI</u> |                       |
|-----------------------|----------------|---------------|---------------|------------------------|---------------|---|-----------------------|
| <u>Initial</u>        | <u>15 Min.</u> | <u>30 Min</u> | <u>60 Min</u> | <u>70 Bc</u>           | <u>100 Bc</u> | <u>100 °F (8 hr)</u>  | <u>100 °F (24 hr)</u> |
| 9                     | 10             | 12            | 16            | 106                    | 120           | 1080  | 3060                  |

API Spec.                      30 Bc max.  
   in 15-30 min.  
   stirring period                      >= 90 min                      250 PSI min.    1800 PSI min.

The above Class A cement meets all API specifications for current API Class A (O)

All well cement tests are performed according to current API Spec. 10A

QC Manager

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