

DFL-2

APPLICATION

- Intermediate and Production Casing
- Liner
- Squeeze
- Plug and Abandonment
- 10°C - 230°C (Tested)

BENEFITS

- Gas migration control
- Promotes expansion
- Right Angle Set
- Impermeable filter cake

FEATURES

- Pre-hydratable
- Non-retarding to set times
- Low rheology
- CaCl₂ compatible
- Effective in lightweight slurries
- Typical loadings: 0.6 – 1.0%

PHYSICAL & CHEMICAL PROPERTIES

| | |
|--------------------|--------------|
| APPEARANCE | Brown powder |
| TYPE | Proprietary |
| PRE-HYDRATE | YES |

SAFETY & HANDLING

| | |
|------------------|----------------|
| WHMIS | Not controlled |
| TDG | Non-regulated |
| PACKAGING | 20 kg bags |

DESCRIPTION

As the cement slurry is pumped across a permeable formation it is exposed to a differential pressure across a filter medium. The filter medium allows water (filtrate) to pass through leaving behind cement particles (filter cake). Insufficient fluid loss control can cause excess filtrate resulting in an increase in slurry viscosity, higher pump pressures or in severe cases prevent proper slurry placement in both primary and remedial cementing operations.

DFL-2 is a dispersed linear fluid loss used in both primary and remedial cementing. DFL-2 is compatible with most cements and additives making it a versatile additive across a broad range of applications.

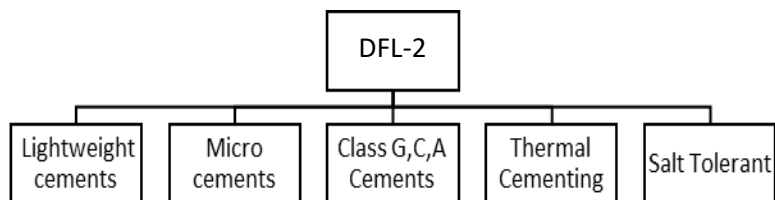
This type of water-soluble polymer controls fluid loss by increasing the viscosity of the aqueous phase of the cement slurry while decreasing filter cake permeability.

The right-angle setting characteristics combined with the impermeable filter cake development is an effective solution for gas migration issues.

TECHNICAL DATA:

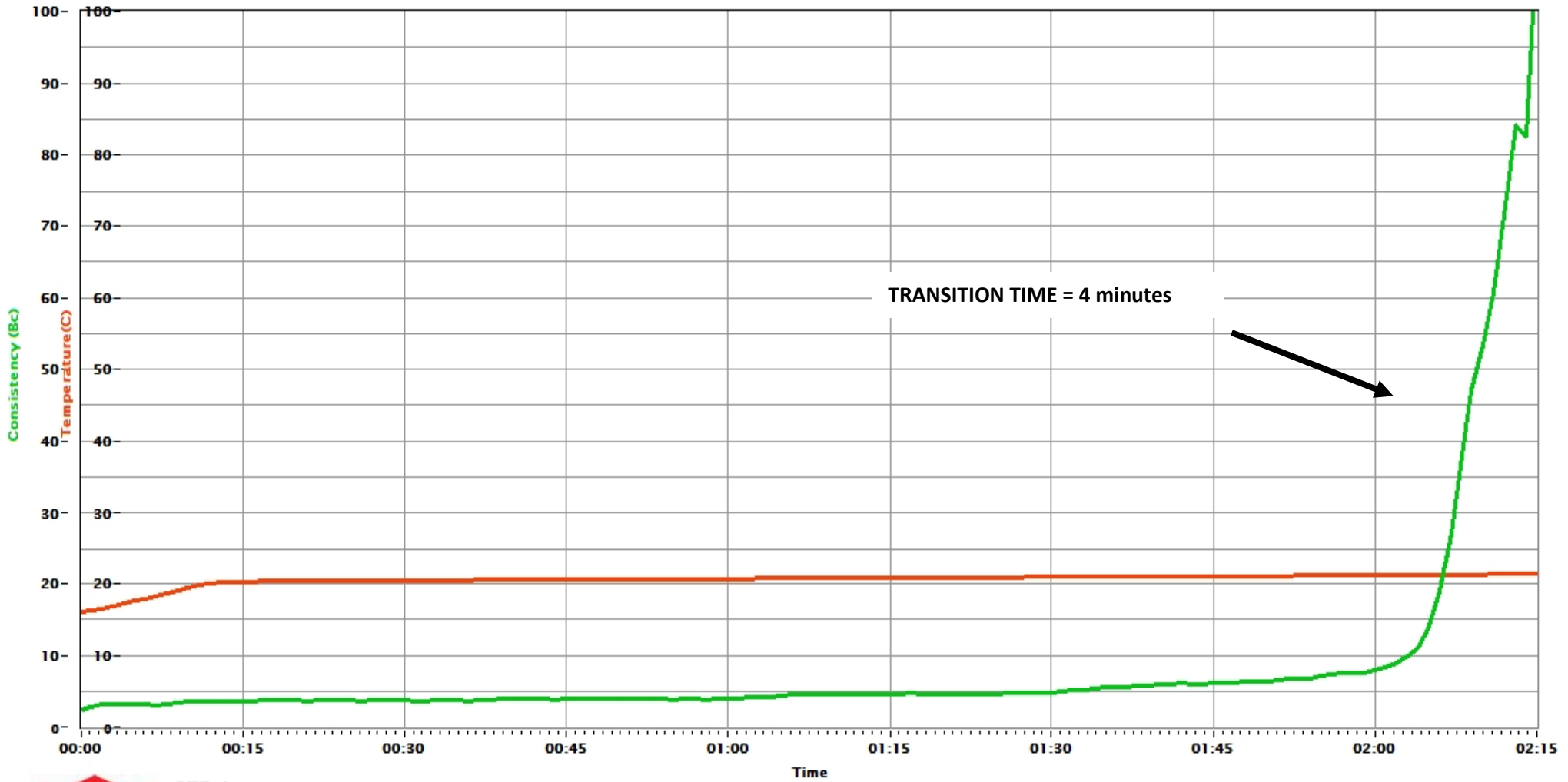
0-1-0 "G" @ 1900 kg/m³

| TEMP °C | ADDITIVE % | | RHEOLOGY | | | | FLUID LOSS (mL)API | THICKENING TIME 70Bc |
|---------|------------|-------------------|----------|-----|---|---|--------------------|----------------------|
| | DFL-2 | CaCl ₂ | 300 | 100 | 6 | 3 | | |
| 20 | 1.0 | 1.0 | 165 | 68 | 7 | 5 | 29 | 2:11 |
| 30 | 1.0 | - | 174 | 72 | 9 | 6 | 25 | 2:55 |



20°C 0-1-0 G @ 1900 kg/m³

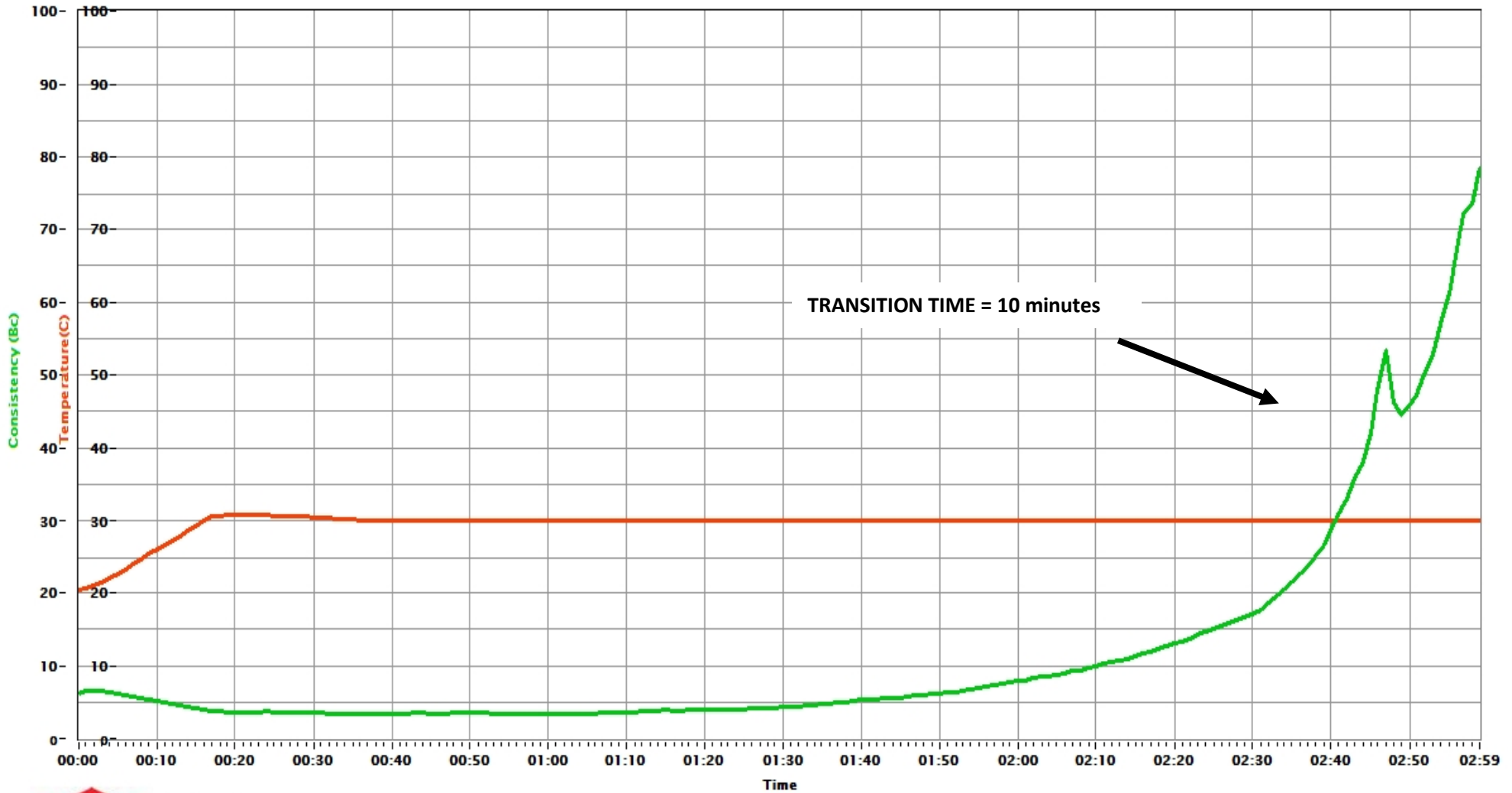
1.0% DFL-2, 1.0% CACL2



CTE, Inc.
Tulsa, OK

www.ctetulsa.com

| | |
|---------------|----------------------------|
| Alarm 45.00Bc | Bc 45.00 @ 128.964 minutes |
| Alarm 60.00Bc | Bc 60.00 @ 130.958 minutes |
| Alarm 75.00Bc | Bc 75.00 @ 132.950 minutes |



| | |
|---------------|----------------------------|
| Alarm 45.00Bc | Bc 45.00 @ 165.963 minutes |
| Alarm 60.00Bc | Bc 60.00 @ 174.958 minutes |
| Alarm 75.00Bc | Bc 75.00 @ 178.961 minutes |