

**L.D.A**

**APPLICATION**

- Intermediate and Production Casing
- Horizontal Wells
- Remedial Cementing

**BENEFITS**

- Zero free water
- Low fluid loss values
- Promotes expansion
- Fast transition times; prevents gas migration potential
- Reduced blend costs with less additives

**FEATURES**

- Typical loadings; 0.8 – 1.5%
- Eliminates the use of highly reactive cement extenders
- Predictable and consistent performance
- Slurry density range (1400-1700 kg/m<sup>3</sup>)

**PHYSICAL & CHEMICAL PROPERTIES**

<b>APPEARANCE</b>	White powder
<b>TYPE</b>	Proprietary
<b>PRE-HYDRATE</b>	YES

**SAFETY & HANDLING**

<b>WHMIS</b>	Not controlled
<b>TDG</b>	Non-regulated
<b>PACKAGING</b>	20 kg Bags

**DESCRIPTION**

Cementing has become more complex and riskier in recent years with deeper and longer reach horizontal completions. Careful additive selection along with blend design is needed to tackle this scope of work and provide a consistent and reliable option for well cementing.

L.D.A is a unique blend of synthetic based polymer technology optimized to control free water, fluid loss and promote expansion. L.D.A is effectively used as an extender to lower the slurry density in the range of 1400-1700 kg's/m<sup>3</sup>. This polymer chain structure also provides for excellent cement particle suspension which makes this an ideal additive for cements placed in a horizontal well.

The L.D.A composition does not include reactive chemical extenders which become hard to retard at elevated temperatures. Further cost reduction is realized as this multifunctional additive results in a reduction of other chemistry needed when designing cement slurries. With less additives in the mix, greater consistency and improved quality control of the blended product is realized.

**TECHNICAL DATA: 1:1:0 G**

**SLURRY STABILITY**

TEMP °C	Density (Kg/m <sup>3</sup> )	Additives %			FW 45° %	Fluid Loss API	RHEOLOGY			
		LDA	LTR	AF			300	100	6	3
50	1600	0.9	-	0.1	0	58	82	30	4	2
50	1600	1.0	-	0.1	0	42	115	38	5	3
60	1600	1.0	0.1	0.1	0	38	121	42	6	4
75	1600	1.0	0.2	0.1	0	33	129	48	6	4

**THICKENING TIME AND COMPRESSIVE STRENGTH**

TEMP °C	Density Kg/m <sup>3</sup>	Additives %			Thickening Time 70Bc	Compressive Strength (MPa)		
		LDA	LTR	AF		12 Hr	48 Hr	96 Hr
50	1600	0.9	-	0.1	4:38	-	-	-
50	1600	1.0	-	0.1	4:43	3.5	11.03	22.1
60	1600	1.0	0.1	0.1	5:35	-	-	-
75	1600	1.0	0.2	0.1	7:40	-	-	-