PRODUCT DATA SHEET

Heracles « Class L »

Low CO2 Well cement for Surface to Production casing applications

BENEFITS

- Matches API class G performance application at 15.8ppg
- Optimized for use at 15.4ppg
- Low free fluid
- Good response to silica flour addition
- Higher or comparable mechanical properties to class G
- Low porosity (Mercury porosity)
- Low segregation (BP test)
- Very good rheology with less bentonite vs. ref class G for low density surface casing application
- Low CO_2 cement –20% vs class G.

APPLICATIONS

- Can be used for surface to production casing primary cementing
- Similar performance vs. ref class G w/ retarder and anti-settling for Tail and Lead application
- Can replace class A with conventional additives adjustment

CONTACT US

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Heracles "Class L" is a low CO2 Oil well cement that meets the API "class L" and "class G" performance specifications.

Heracles "Class L" provides 3 major benefits to the end-user:

- **Robustness**. Heracles "Class L" brings robust system for density (15,0 to 15.8ppg) and additives variations. Can be used with conventional extender to reduce the density.
- **CO2 reduction.** Heracles "Class L" generates 20% less CO2 than normal class G for its production.
- **Performance.** Heracles "Class L" provides performances equivalent to standard class G in most application. It demonstrates good response to retarder and dispersant and positive to silica flour addition.

For safety precautions refer to product's material safety data sheet.

PHYSICAL PROPERTIES

Specific gravity	2,99 (± 0.01) kg/l
Sack weight	76,1 lbs/sk
Slurry density range	15,0-15,8lb/gal
Temperature range	Up to 300°F w limited strength retrogration
Free water	5,6% @15,0ppg, 2.4% at 15,4 ppg and 1.4% at 15.8 ppg
Compressive strength (8hr)	38°C: 3,3MPa (479PSI)@ 1.9SG (15,8ppg) 60°C: 13,2MPa (1914PSI)@15,8ppg 38°C: 2,3MPa (333PSI)@1,85 SG (15,4ppg) 60°C: 8,9Mpa (1290PSI) @1,85 SG 38°C: 2,0 MPa (293PSI) @1,80 SG (15,0ppg) 60°C: 7,3 MPa (1059PSI)@1,80 SG

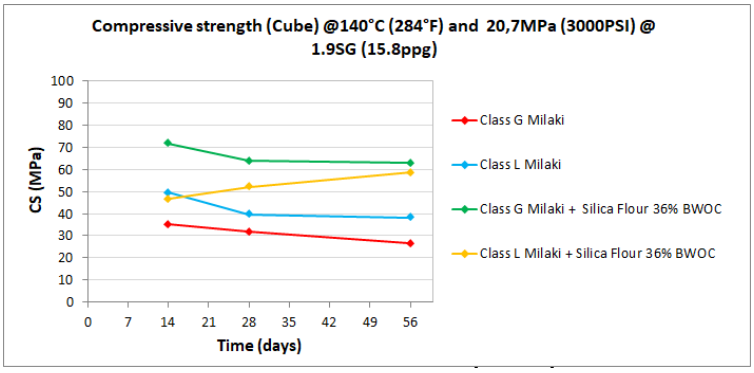

Fig 1. Class L strength retrogration with and without addition of silica flour in comparison to standard class G