SCOTTCO CHEMICALS

PRODUCT DATA
Friction Reducer

FR-2

APPLICATION

- Primary & Remedial Cementing
- Plug and Abandonment
- Dry blend or pre-hydrate

BENEFITS

- Reduces friction pressures
- Consistent performance
- Enhances stability of retarders and fluid loss additives
- Allows cement to mixed at higher densities
- High temperature stability

FEATURES

- Non-retarding
- $CaCl_2$, PVA, and linear fluid loss compatible
- Typical loadings; 0.2 - 0.6%
- Promotes a turbulent flow regime

PHYSICAL PROPERTIES

APPEARANCE	Off white powder
TYPE	Proprietary
PRE-HYDRATE	YES

SAFETY & HANDLING

WHMIS	Not controlled
TDG	Non-regulated
PACKAGING	20 kg bags

DESCRIPTION

A successful cement job relies on the ability to mix and place the cement slurry in a wellbore while effectively displacing drilling mud or wellbore fluid. To achieve this, special attention must be given to the apparent viscosity and rheological profile of the slurry.

Cement slurries are a viscous fluid mixture comprising of a high concentration of particles in an aqueous suspension. The viscosity, or rheological profile, is directly related to the solids volume fraction of that mixture and the particle interaction within.

FR-2, when added in the correct dose will effectively cause an electrostatic repulsion between the cement grains causing them to be evenly dispersed within the aqueous suspension. Caution must be given not to over disperse as this will cause the cement particles to drop out of suspension causing sedimentation or free water.

TECHNICAL DATA:

0-1-0 "G"

TEMP °C	DENSITY Kg/m³	FR-2 %	PVA	$CaCl_2$ %	RHEOLOGY			
					300	100	6	3
25	1900	0.3	-	-	63	41	26	21
25	1900	0.3	0.5	-	66	43	25	21
25	1900	0.3	0.5	1.0	59	36	21	19
25	1900	0.4	-	-	44	22	9	7
25	1900	0.4	0.5	1.0	40	21	7	5
25	1900	0.5	0.5	1.0	36	18	5	3
25	2100	0.8	-	-	136	45	5	2
25	2100	1.0	-	-	103	36	3	2

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