



PRODUCT DATA SHEET

PCR-3

Oilfield Chemicals Cement Retarder

DESCRIPTION

ECONOMY'S PCR-3 is synthetic cement retarder used to control the thickening time of a cement slurry.

ADVANTAGES

PCR-3 is a free flowing powder that may be dry blended with cement before mixing. It may be used to control the setting of a slurry for bottom hole circulating temperatures up to 250°F (121 °C). In saturated salt slurries it may be used to 350°F (177 °C). In fresh water cementing systems it may be used up to to 430°F (221 °C) when combined with a cement retarder intensifier. PCR-3 has a retarding and dispersing effect on the cement slurry during placement.

APPLICATION

PCR-3 may be used for retarding any API class of cement (A, C, G or H). It may be used with other cement additives such as fluid loss additives, silica flour, dispersants, defoamers and weighting materials.

PROPERTIES

Appearance	White Powder
Specific Gravity	1.42
Bulk Density	34.8 lb/gal
pH	6-7
Water requirements	none
Packaging	50 lb. bags
See Thickening Time Data	

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PCR-3

POLYMER CEMENT RETARDER TESTING

**THICKENING TIME DATA IN CLASS H CEMENT CONTAINING 35% #1 SILICA SAND AND 0.5% FLA
4.8 GAL./SK (18.2 L/SK); 16.9 LB./GAL. (2.0 KG/L)**

PCR-3, % BWC	THICKENING TIME, H:MM				
	150F (65C)	180F (82C)	200F (93C)	220F (104C)	245F (118C)
0.4	3:07	-	-	-	-
0.5	4:53	4:38	4:41	-	-
0.8	-	8:27	7:27	-	-
1.0	-	-	7:36	5:10	3:44
1.3	-	-	-	6:39	4:27
1.5	-	-	-	-	4:40

**THICKENING TIME AND UCA DATA IN CLASS H CEMENT CONTAINING SATURATED SALT, 35%
#1 SILICA SAND AND 0.5% FLA
5.1 GAL./SK (19.3 L/SK); 17.0 LB./GAL. (2.0 KG/L)**

PCR-3, % BWC	FL-17, % BWC	TEST TEMPERATURE	THICK. TIME, H:MM	24 HR. UCA STRENGTH, PSI
0.2	0.0	245F (118C)	5:15	3,750
0.5	0.0	277F (136C)	6:58	2,550
0.5	0.0	308F (153C)	4:10	3,100
0.5	1.0	308F (153C)	4:42	-
1.0	0.0	348F (175C)	6:00	2,700
1.0	1.0	348F (175C)	4:50	-