

## API Specification Of Oil Well Cement Class 'G' Grade HSR & SDCC Norms

Sr.No	Description	Unit	Req. as per 10A April 2002 (23rd Edition)	SDCC Norms
<b>Chemical Composition</b>				
1	Magnesium Oxide(MgO)	%	6.0 Max	2.0 Max
2	Sulphuric Anhydride(SO3)	%	3.0 Max	2.5 Max
3	Loss on Ignition(LOI)	%	3.0 Max	2.5 Max
4	Insoluble Residue (IR)	%	0.75	0.60Max
5	Tricalcium Silicate (C3S)	%	48.00 Min 65 Max	53-62 Max
6	Tricalcium Aluminate (C3A) %	%	3.0 Max	2.75 Max
7	Twice Tricalcium Aluminate + Tetra Calcium aluminoferrite (2C3A + C4AF)	%	24.0 Max	23.75Max
8	Alkali as Na2O equivalent	%	0.75 Max	0.6 Max
<b>Physical Properties</b>				
1	Mix Water, % of the weight of Cement. %	%	44	44
2	Free fluid content	%	5.90 Max	4.50 Max
3	Pressure Temperature thickening time test, schedule 5 a) Maximum consistency 15-30 Minutes stirring period (Bearden unit of consistency) b) Thickening time	BC	30.00 Max	25.0 Max
		Minute	90-120	90-120
4	Compressive Strength (Eight hours curing at atmospheric pressure) a) 38°C Curing temperature b) 60°C Curing temperature	Psi	300 Min.	500 Min.
		Psi	1500 Min.	650 Min.