

**Buzzi Unicem Well Cements****HT CEM**

Class/Type:

Blend of API Class "G" HSR OIL WELL CEMENT with 43% BWOC Silica Flour

Physical Performance

DY API Class G HSR - Siniscola	70	wt-%
Crystalline Silica (XRD)	30	wt-%
Crystalline Silica	43	BWOC-%
Specific Surface Area	3800	m ² /kg

Chemical Composition of Blend (XRF)

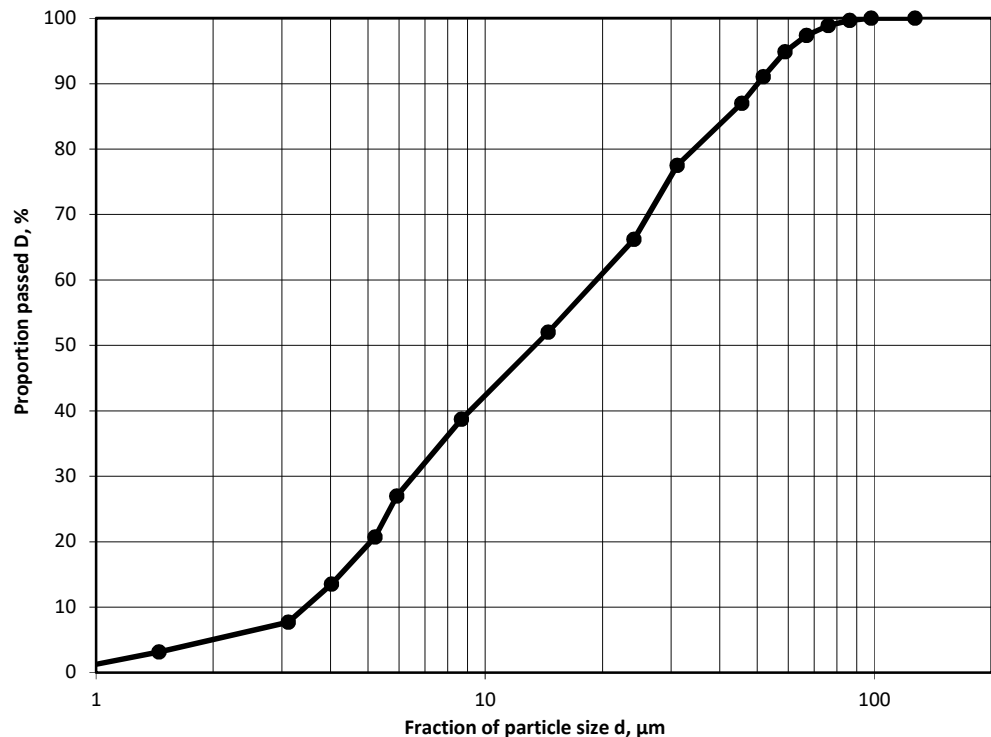
L.O.I.	1,3	wt-%
SiO ₂	39,5	wt-%
CaO	47,0	wt-%
Al ₂ O ₃	3,4	wt-%
Fe ₂ O ₃	3,7	wt-%

Grain size distribution

Measuring: Optical counting by diffraction of laser
 Test device: Malvern Mastersizer 3000
 Sample preparation: Aero S dry dispersion unit (with 15g dry powder)

Fraction of particle size **d** / Proportion passed **D** / Proportion retained **R**

d µm	D %	R %
1,0	1,2	98,8
1,5	3,1	96,9
3,1	7,7	92,3
4,0	13,5	86,5
5,2	20,7	79,3
5,9	27,0	73,0
8,7	38,7	61,3
14,5	52,0	48,0
24,1	66,2	33,8
31,1	77,5	22,5
45,6	87,0	13,0
51,8	91,1	8,9
58,9	94,9	5,1
66,9	97,4	2,6
76,0	98,9	1,1
86,4	99,7	0,3
98,1	100,0	0,0
127,0	100,0	0,0

**Specific density**γ pycnometer **3,02** g/cm³

Emission	Date	Doc. n.	Approval
DQ/AT	14 May 2021	STPEX87SINOWC	<i>Massimo Veglia</i>

According to API Spec 10A, Clause 4.2.2 "Time from sampling to testing" the results of this report of testing were obtained by testing "freshly" produced cement, being not older than 7 days counted from the date of production and sampling. All tests are performed under strict API Spec 10A laboratory conditions and with API Spec 10A specified equipment. Test and product conditions deviating from these specifications may lead to different results.