



Water demand coefficient					
Particle size mm	Consistency				
	liquid (K5)	half-liquid (K4)	plastic (K3)	dense-plastic (K2)	damp (K1)
0-0,125	0,296	0,255	0,239	0,215	0,184
0-0,25	0,241	0,211	0,186	0,160	0,139
0-0,5	0,188	0,168	0,148	0,127	0,115
0,125-0,25	0,151	0,137	0,122	0,109	0,094
0,25-0,5	0,112	0,095	0,084	0,076	0,064
0,5-1	0,077	0,065	0,058	0,053	0,045
1-2	0,058	0,048	0,043	0,039	0,033
2-4	0,044	0,037	0,032	0,029	0,025
4-8	0,034	0,029	0,026	0,023	0,020
8-16	0,027	0,023	0,020	0,018	0,015
16-32	0,022	0,018	0,016	0,015	0,013
32-63	0,016	0,015	0,013	0,012	0,009
32,5 cement	0,31	0,29	0,27	0,25	0,23
42,5 and 52,5 cement	0,34	0,32	0,30	0,28	0,26
Calcium aluminate cement	0,28-0,50				
Powder lime, loam, routes	0,5				

\* in the case of using crushed aggregates the water demand coefficient value should be increased by 15%  
\*\* in the case of using crushed aggregates with  $\rho > 2,65 \text{ kg/m}^3$  the water demand coefficient value should be multiplied by  $2,65/\rho$

Softening coefficient of the coarse aggregate					
Particle size, mm	Consistency				
	damp (K1)	dense-plastic (K2)	plastic (K3)	half-liquid (K4)	liquid (K5)
	thickness of the enveloping mortar film, mm				
	1,4	0,8	1,0	1,5	2,0
2-4	1,59	1,95	2,37	3,38	4,63
4-8	1,27	1,37	1,59	1,95	2,37
8-16	1,12	1,19	1,27	1,42	1,59
16-31,5	1,06	1,09	1,13	1,2	1,27

Softening coefficient of the fine aggregate					
Particle size, mm	Consistency				
	damp (K1)	dense-plastic (K2)	plastic (K3)	half-liquid (K4)	liquid (K5)
	thickness of the enveloping paste film, $\mu\text{m}$				
	30	40	50	60	70
0-0,125	2,40	2,90	3,60	4,41	5,33
0,125-0,25	1,56	1,79	2,03	2,30	2,59
0,25-0,5	1,26	1,36	1,45	1,56	1,67
0,5-1	1,12	1,17	1,20	1,26	1,31
1-2	1,06	1,08	1,10	1,12	1,15

Bolomey Equation				
Type of coarse aggregate	$A_i$	Cement strength class		
		32,5	42,5	52,5
Natural	$A_1$	18	21	23
	$A_2$	12	14,5	15
Crushed	$A_1$	20	24	26
	$A_2$	13,5	16	17,5