

Aggregate

Commercial Department

Siderurgica Sevillana S.A. - Autovía A-92. Km. 6
41500 Alcalá de Guadaira - Sevilla (Spain)

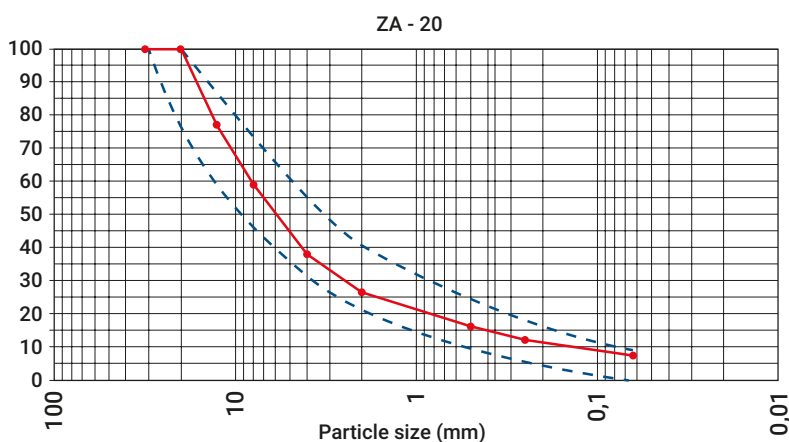
Tel +34 95.497.93.00 - **Fax** +34 95.497.93.15

Email ventas.sise@rivagroup.com

Revision 11/2017

Test type	Regulation
Particle size analysis of aggregate	UNE-EN 933-1:1998/A1:2006

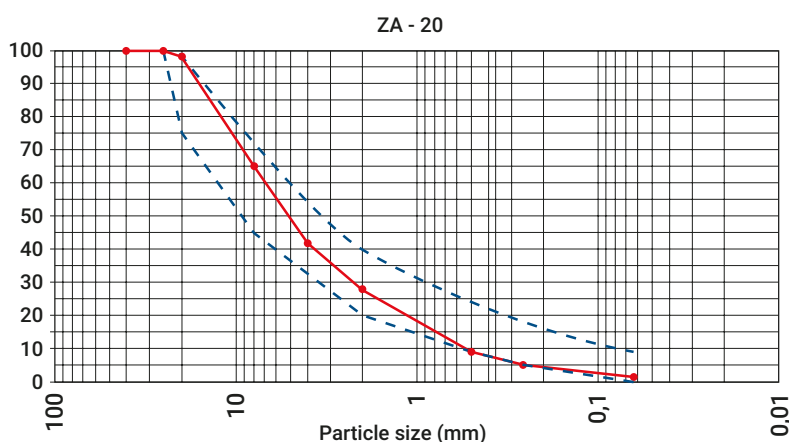
	Result									
Sieve	31,5	20	12,5	8	4	2	0,50	0,25	0,063	
% Pass	100,0	99,3	77,1	58,7	38,2	27,0	16,3	12,2	7,4	



Test type	Regulation	Result
Fine particle content calculation	UNE-EN 933-1:1998/A1:2006	f7
Flakiness index	UNE-EN 933-3:1997	FI20
Fractured face percentage	UNE-EN 933-5:1999	Crushed particles (Cc) 100% Completely crushed particle (Ctc) 100% Rounded particles (Cr) 0% Completely rounded particle (Ctr) 0%
Sand equivalent in the ground	UNE-EN 933-8:2000	64
Clay content in fine particles	UNE-EN 933-9:1999	Nc
Methylene blue-concrete aggregate	UNE-EN 933-9:2010	0,2g/kg
Calculation of Atterberg limits	UNE 103103:1994 UNE 103104:1993	Plasticity index: NON-PLASTIC
Modified proctor	UNE 103501:1994	Maximum density 2.46 g/cm ³ Optimum humidity 4.28%
Calculation of the CBR index	UNE 103502:1995	PROCTOR maximum density 2.46 g/cm ³ Optimum humidity 4.28% CBR index (100% compaction) 94.80 CBR index (95% compaction) 78.91 Average swelling 0%
Los Angeles coefficient (aggregates)	UNE-EN 1097-2:1999	Particle size fraction used: Between sieves. 10 and 14 mm - LA 20
Total sulphur content (aggregates)	UNE-EN 1774-1:1999 Chapter 11	Total sulphur compounds (S) 0.45% Acid-soluble sulphates (SO ₃) 0.39%
Volume expansion (%)	UNE-EN 1774-1:1998 Apat 19.3	V5

Test type	Regulation
Particle size analysis of aggregate	UNE-EN 933-1:1998/A1:2006

Result									
Sieve	40	25	20	8	4	2	0,50	0,25	0,063
% Pass	100,0	100,0	99,0	64,0	42,0	28,0	9,0	5,0	1,5



Test type	Regulation	Result
Fine particle content calculation	UNE-EN 933-1:1998/A1:2006	f3
Flakiness index	UNE-EN 933-3:1997	FI20
Fractured face percentage	UNE-EN 933-5:1999	Crushed particles (Cc) 98% Completely crushed particle (Ctc) 97% Rounded particles (Cr) 2% Completely rounded particle (Ctr) 0%
Sand equivalent in the ground	UNE-EN 933-8:2000	70
Clay content in fine particles	UNE-EN 933-9:1999	Nc
Methylene blue-concrete aggregate	UNE-EN 933-9:2010	0,2g/kg
Calculation of Atterberg limits	UNE 103103:1994 UNE 103104:1993	Plasticity index: NON-PLASTIC
Modified proctor	UNE 103501:1994	Maximum density 2.44 g/cm3 Optimum humidity 6.06%
Calculation of the CBR index	UNE 103502:1995	PROCTOR maximum density 2.43 g/cm3 Optimum humidity 3.76% CBR index (100% compaction) 55.34 CBR index (95% compaction) 45.17 Average swelling 0%
Los Angeles coefficient (aggregates)	UNE-EN 1097-2:1999	Particle size fraction used: Between sieves. 10 and 14 mm - LA 25
Total sulphur content (aggregates)	UNE-EN 1774-1:1999 Capther 11	Total sulphur compounds (S) 0.42% Acid-soluble sulphates (SO3) 0.27%
Volume expansion (%)	UNE-EN 1774-1:1998 Apat 19.3	<0,5%