YTU CIVIL ENGINEERING
CONSTRUCTION MATERIALS DIVISION

CONSTRUCTION MATERIALS

1.LABORATORY REPORT: AGGREGATES

Name:	Group:
Student ID:	Session:

1.1. UNIT WEIGHT (TS EN 1097-3)

Calculations:

Sample	**W_{SSD} (g)**	**V (cm^3)**	**β (g/cm^3)**
Fine aggregate: Natural Sand			

1.2. SPECIFIC GRAVITY (PARTICLE DENSITY) (TS EN 1097-6)

Calculations:

Sample	**W_1** SSD Aggregate (g)	**W_2** SSD Aggregate + Water + Pycnometer (g)	**W_3** Water + Pycnometer (g)	**γ** (g/cm^3)
Coarse aggregate: Crushed Stone No.1				

1.3. EFFECT OF MOISTURE

H (%)	**W (*g*)**	**β (*g/cm³*)**	**V (*l*)**
0 (SSD)			
5			
10			

Calculations:

1.4. SIEVE ANALYSIS AND PSD CURVES (TS EN 933-1)

Sieve size, d_i (mm)	**Fine aggregate:** *Natural Sand*			**Coarse aggregate:** *Crushed stone No.1*			**Coarse aggregate:** *Crushed stone No.2*	**Mixture aggregate**	
	Amount of sample : *1000 g*			**Amount of sample:** 3000 *g*					
	Retained (g)	Passed (g)	Passed P_1 (%)	Retained (g)	Passed (g)	Passed P_2 (%)	Passed P_3 (%)	Passed P_m (%)	100-P_m (%)
31.5	*0*						*100*		
22.4	*0*						*100*		
16	*0*						*92*		
11.2	*0*						*53*		
8	*0*						*23*		
4	*0*						*3*		
2	*250*						*0*		
1	*170*						*0*		
0.5	*190*						*0*		
0.25	*140*						*0*		
0.15	*120*						*0*		
Mix ratio	.....**%**			.....**%**			.....**%**	**$I_{m,m}$=**	

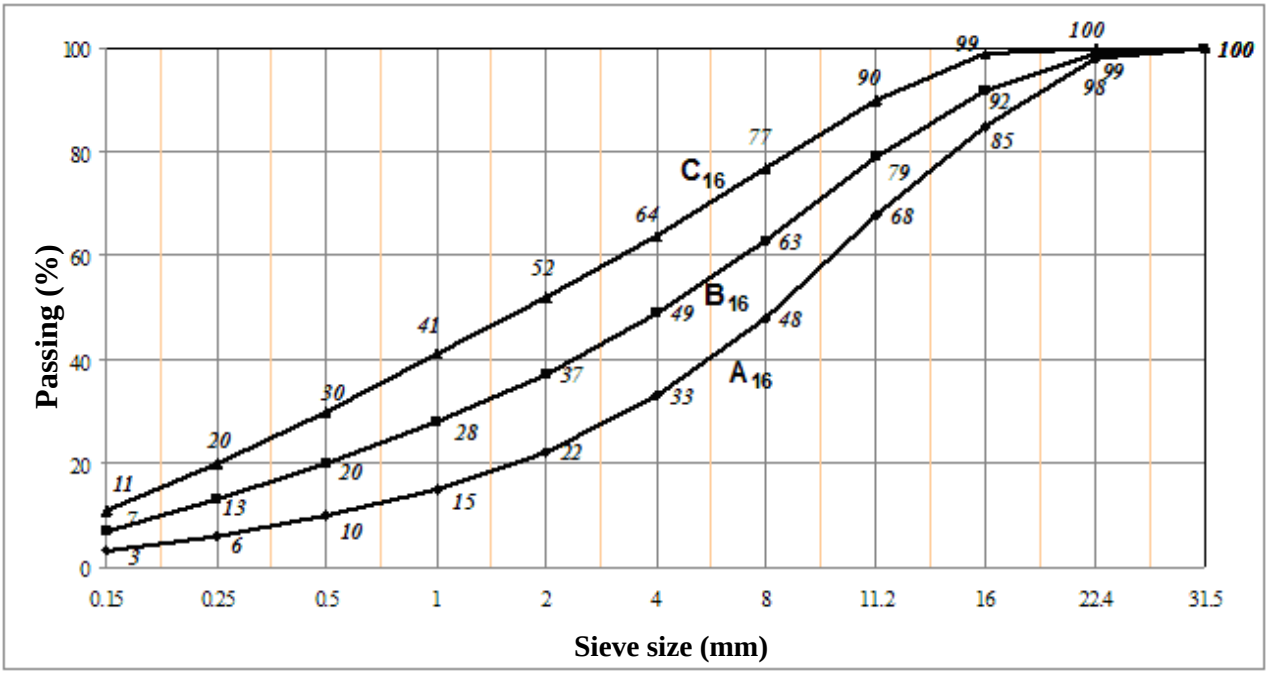

Figure 1.1. Reference particle size distribution curves which are given in TS 802 (March 2016) for concrete with a maximum aggregate particle size of 16 mm.