

Statement of Test Results of Maddhapara hardrock conducted by BRTC, BUET, Dhaka in different years.

Sl. No.	Name of Test/ Specification	Test Results of different years								Acceptable Range
		1998	2000	2003	March, 2007		August-Sept, 2007	April, 2011	April, 2013	
		(Crushed Aggregate)	(Crushed Aggregate)	(Crushed Aggregate)	(Crushed Aggregate)	(Crushed Ballast)	(Aggregate)	(Crushed Ballast)	(Crushed Aggregate)	
1	Bulk Specific Gravity	2.81	2.81	2.80	-	-	2.79	2.79	2.76	> 1.60
2	Unit Weight	1560 kg/m ³	1670 kg/m ³	1550 kg/m ³	-	-	1560 kg/m ³	-	1500 kg/m ³	>1120 kg/m ³
3	Water Absorption	0.45%	0.33%	0.60%	-	-	0.45%	0.40%	0.12%	0.20% - 4.00%
4	LA-Abrasion Value	27.00%	23.20%	23.80%	29.00%	20.00%	30.00%	23.00%	28.00%	30.00% - 50.00%
5	Aggregate Impact Value(AIV)	23.00%	26.00%	23.00%	27.00%	24.00%	25.00%	-	25%	25.00% - 30.00%
6	Aggregate Crushing Value(ACV)	23.00%	25.00%	21.00%	24.00%	22.00%	24.00%	-	23%	25.00% - 30.00%
7	10% Fines Value (FV)	170 KN	130 KN	200 KN	160 KN	180 KN	170 KN	-	140 KN	> 125 KN
8	Flakiness Index	22.00%	19.00%	14.00%	32.00%	41.00%	25.00%	37.00%	44.00%	< 45.00%
9	Elongation Index	29.00%	33.00%	25.00%	45.00%	98.00%	43.00%	-	41%	-
10	Coating and Stripping Test (Estimated Coating Area)	-	-	95.00%	95.00%	95.00%	Above 95.00%	-	Above 95%	-
11	% Loss in Na ₂ SO ₄ Soundness	0.85%	1.00%	0.49%	1.10%	0.14%	1.00%	0.20%	0.34%	< 12.00%
12	Average Sulphate Content	0.05%	0.089%	0.03%	-	-	Not Present	-	-	< 2.50%
13	Average Chloride Content	0.01%	0.015%	0.003%	-	-	0.002%	-	-	0.1%-0.3%
14	Clay Lump & Friable Partichs	-	-	-	-	-	Nil	-	0.04%	-

15 Sieve Analysis of Ballast (April, 2011)

Sieve Size (mm)	Material Retained (gm)	Percent of Material Retained (%)	Cumulative % Retained (%)	Percent Finer (%)
75.00	0.00	0	0	100
63.00	640.00	3	3	97
50.00	3326.00	17	20	80
37.50	11302.00	57	77	23
25.00	4682.00	23	100	0
19.50	50.00	0	100	0
12.50	0.00	0	100	0
Pan	0.00	0	100	0
Total	20000.00	0		

16 Moh's hardness-6.5 (Test Conducted by Geological Survey of Bangladesh)