

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 (Crushed Aggregate)	2000 (Crushed Aggregate)	2003 (Crushed Aggregate)	March, 2007 (Crushed Aggregate)	August-Sept, 2007 (Aggregate)	April, 2011 (Crushed Ballast)	April, 2013 (Crushed Aggregate)																																																				
1	Bulk Specific Gravity	2.81	2.81	2.80	-	-	-	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%	0.12%	0.20% - 4.00%																																																		
4	LA-Abrasion Value	27.00%	23.20%	23.80%	29.00%	20.00%	23.00%	30.00%	28.00%	30.00% - 50.00%																																																		
5	Aggregate Impact Value(AIV)	23.00%	26.00%	23.00%	27.00%	24.00%	23.00%	25.00%	25%	25.00% - 30.00%																																																		
6	Aggregate Crushing Value(ACV)	23.00%	25.00%	21.00%	24.00%	22.00%	24.00%	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%	37.00%	25.00%	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	0.015%	0.015%	0.003%	-	-	0.002%	-	-	0.1%-0.3%																																																		
14	Clay Lump & Friable Particles	-	-	-	-	-	Nil	-	0.04%	-																																																		
15	Sieve Analysis of Ballast (April, 2011)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Sieve Size (mm)</th> <th>Material Retained (gm)</th> <th>Percent of Material Retained (%)</th> <th>Cumulative % Retained (%)</th> <th>Percent Finer (%)</th> </tr> </thead> <tbody> <tr><td>75.00</td><td>0.00</td><td>0</td><td>0</td><td>100</td></tr> <tr><td>63.00</td><td>640.00</td><td>3</td><td>3</td><td>97</td></tr> <tr><td>50.00</td><td>3326.00</td><td>17</td><td>20</td><td>80</td></tr> <tr><td>37.50</td><td>11302.00</td><td>57</td><td>77</td><td>23</td></tr> <tr><td>25.00</td><td>4682.00</td><td>23</td><td>100</td><td>0</td></tr> <tr><td>19.50</td><td>50.00</td><td>0</td><td>100</td><td>0</td></tr> <tr><td>12.50</td><td>0.00</td><td>0</td><td>100</td><td>0</td></tr> <tr><td>Pan</td><td>0.00</td><td>0</td><td>100</td><td>0</td></tr> <tr><td>Total</td><td>20000.00</td><td>0</td><td></td><td></td></tr> </tbody> </table>									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		
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16 Moh's hardness-6.5 (Test Conducted by Geological Survey of Bangladesh)