## DEPARTMENT OF NANOMATERIALS AND CERAMIC ENGINEERING (NCE), BUET, DHAKA APPROVED RATES FOR TESTING MATERIALS AND SERVICES

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Effective from May, 2025

S.N.	Name of Tests	Test Rate	
Cement and Cement Clinker			
1	Insoluble Residue	6,325.00	
2	Loss on Ignition	6,325.00	
*3	Compositional Analysis Using XRF:	25,300.00	
	Aluminium Oxide (Al <sub>2</sub> O <sub>3</sub> ), Ferric Oxide (Fe <sub>2</sub> O <sub>3</sub> ),		
	Silicon Dioxide (SiO <sub>2</sub> ), Sulfer Trioxide (SO <sub>3</sub> ),		
	Magnesium Oxide (MgO), Sodium Oxide (Na2O), Potossium Oxide (KaO), Coloium Oxide (CaO)		
	Titanium dioxide $(TiO_2)$ Chloride Content $(Cl^2)$		
	etc., Total Alkali Content (Na <sub>2</sub> O <sub>equv.</sub> ) and Lime		
	Saturation Factor (LSF)		
	<b>*Prerequisite:</b> Loss on Ignition (BDT 6,325)		
4	Compound Compositional Analysis using XRD	37,950.00	
	(including compositional analysis of S.N. 5): Tricalcium Silicate (C2S), Dicalcium Silicate		
	$(C_2S)$ , Tricalcium Aluminate $(C_3A)$ , Tetracalcium		
	Alumino-ferrite (C4AF), Free Lime (CaO)		
5	<b>Package</b> (All the above four tests)	63.250.00	
	Clay/Soil/Sand	,	
6	Composition analysis Using XRF	25.300.00	
7	Moisture Content/ loss on drying	3,795.00	
-	Compound Compositional Analysis using XRD	,	
8	(including compositional analysis of S.N. 3)	75,900.00	
9	Clay/Mud/Mica Content	12.000.00	
10	Sieve Analysis	10.000.00	
11	pH Test of Gypsum/Clav	8.000.00	
	Glass and Glass Raw Materials	2,000.00	
12	Surface Flatness (Roller Wave)	10,120.00	
13	Surface Stress	20,000.00	
14	Edge Stress	20,000.00	
15	Through Thickness Stress Distribution	10 120 00	
15	(Internal Stress)	10,120.00	
16	Air/tin side identification of glass	10,000.00	
17	Flexural Strength/Modulus of rupture	25,000.00	
18	Impact test	9,500.00	
19	Fracture Pattern Test for Tempered Glass	15,000.00	
20	Chemical Composition Analysis of	25 200 00	
20	Glass/Raw Materials Using XRF	25,500.00	
21	% Transmittance and % Absorbance	12,650.00	
22	% Reflectance and % Absorbance	12,650.00	
23	Refractive index at 380 to 780 nm	12 650 00	
25	Air/ glass; Glass/ air	12,050.00	
24	Hardness (Moh's Scale/Vickers)	8,100.00	
26	Comment for Tempered or Non-tempered	6,500.00	
25	Edge requirements: Shell-chip, V-chip	10,120.00	
27	Curvature % measurement	20,240.00	
28	Squareness measurement	3,100.00	
29	Density Measurement	4,750.00	
30	Softening Point (in °C)	32,000.00	
31	Coefficient of Linear Expansion	25,000.00	
32	Solar Energy Spectrum	12.650.00	
	(% Transmittance and % Absorbance)	,050.00	
33	Solar Energy Spectrum	12,650.00	
21	(% Reflectance and % Adsorbance)	12 650 00	
54 25	Modulus of Dupture	12,000.00	
20	Specific Hest	23,000.00	
20	Dimensional Massurement	2 100 00	
3/ 20	Class Shoet thickness to be a second second	3,100.00	
30 30	VRD	37.050.00	
57	Pavement/Paver tiles	57,750.00	
40	Compressive Strength	8,240.00	
41	Flexural Strength	3,500.00	
42	Water absorption	3,500.00	
43	Dimension	2,500.00	
	Commode and Basin		
44	Flush Flow Rate	20,000.00	

S.N.	Name of Tests	Test Rate	
Ceramic Tiles/Ceramic Raw Materials/Sanitary Ware			
45	Dimension	2,500.00	
46	Straightness of sides	1,897.00	
47	Rectangularity	1,897.00	
48	Surface Flatness (centre curvature)	1,897.00	
49	Flexural Strength/Modulus of rupture	3,500.00	
50	Breaking Load	3,500.00	
51	Compressive Strength	8,240.00	
52	Water absorption	3,500.00	
53	Pin abrasion test	2,530.00	
54	Impact test	2,530.00	
55	Glossiness measurement	2,530.00	
56	Chemical Composition Analysis of Raw Materials Using XRF	25,300.00	
57	Using XRF	25,300.00	
58	Chemical Composition Analysis of Glaze Using XRF	25,300.00	
59	Thermal shock measurement	10,120.00	
60	Chemical resistance (qualitative)	12,650.00	
61	Resistance to stains	12,650.00	
62	Chemical Composition Analysis of Tiles/ Ceramic Raw Materials	25,300.00	
63	Surface Hardness (Moh's Scale/Vickers)	8,100.00	
64	Surface Abrasion	2,530.00	
65	Flexural Strength/Modulus of rupture	5,800.00	
66	Water Absorption	6,200.00	
66	Compressive Strength	8,240.00	
67	Hardness	10,000.00	
68	Density	4,750.00	
69	Chemical Composition Analysis Using XRF	25,300.00	
70 Coarse Aggregate Analysis by XRD 37,950.00   Bricks			
71	Chemical Composition Analysis Using XRF	25,300.00	
72	Initial Rate of Absorption	12,650.00	
73	Water absorption	3,500.00	
74	Compressive Strength	3,800.00	
75	Dimension	2,500.00	
76	Campositional Analysis Using VDE	75 000 00	
70	Thermal and Thermogravimetric Analysis	73,900.00	
77	DSC/TGA	25,000,00	
78	Glass Transition Temperature (T <sub>a</sub> )	25,000.00	
79	Specific heat measurement	50,000.00	
80	Thermal expansion coefficient (by Dilatometer)	25,000.00	
Microstructure, Topography, Elemental Analysis and Elemental Mapping			
81	SEM	25,300.00	
82	EDX	25,300.00	
83	SEM+EDX	37,950.00	
84	EDA mapping Sample preparation by machanical poliching	25,300.00	
0J 86	Sample preparation by Cross Section Polisher (CD)	10,000,00	
87	Comment	11,500.00	
Battery			
88	Compound Compositional Analysis of Anode and Cathode using XRD	37,950.00	
89	Micrograph Observation of Anode and Cathode by SEM	25,300.00	
90	Composition analysis Using XRF	25,300.00	
91	Micrograph & Elemental Composition analysis by SEM+EDX	37,950.00	
92	Elemental Composition mapping by EDX	25,300.00	

Notes: i) Field visit fee: Inside Dhaka City = Tk. 15,000; Outside Dhaka = Tk. 25,000 ii) All test procedures comply with ASTM and EN standards.

iii) VAT (15%) included with the total test fees.