



N.E.D University of Engineering and Technology
Department Of Civil Engineering
Material Testing Laboratory

Test Results for Compressive Strength of Concrete

Name of Customer	M/S Aquafin Pakistan (Pvt.) Ltd For M/S NESPAK	
Name of Project	KPT-Port Connectivity Bridge	
Details of Design	4000 psi Cylindrical Strength	
Type of Specimens Prepared	Cylinders 6"x12"	
Date of Testing	27-01-2022	
Details of Materials Used	Type of Cement	Lucky OPC
	Size of Coarse Aggregate	3/4 inch to No. 4 Sieve Size
	Admixture	Betocrete -C16
	W/C Ratio	0.44
	Fineness Modulus of Sand	2.46

Results:

S.No	Details of Mix Design for 1 m ³ Volume of Concrete	Diameter (inch)	Cross Sectional Area (inch ²)	Initial Slump (inches)	Max. Load (Kips)	28 Days Compressive Strength (Lbs/inch ²)	28 Days Avg. Compressive Strength (Lbs/inch ²)
1-1	Without Admixture Cement-430kg Water-192 lit Coarse Aggregate-1071 kg Fine Aggregate-674 kg	6.00	28.260	4.5	119.155	4216	4177
1-2					118.031	4177	
1-3					116.906	4137	
2-1	With Admixture Cement-430kg Water-192 lit Coarse Aggregate-1071 kg Fine Aggregate-674 kg Admixture-8.60 lit (2% by weight of cement)	6.00	28.260	4.5	125.899	4455	4402
2-2					123.651	4375	
2-3					123.651	4375	

Prepared By:

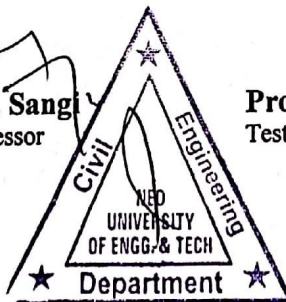
Verified By:

Supervised By:

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Sr. Laboratory Engineer

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Prof. Dr. Rizwan Ul Haque Farooqui
Testing Supervisor





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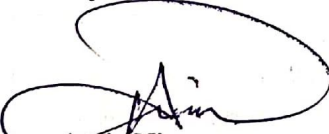
Results for Testing Density, Absorption, and Voids in Hardened Concrete

Name of Customer	M/S Aquafin Pakistan (Pvt.) Ltd For M/S NESPAK
Name of Project	KPT-Port Connectivity Bridge
No of Specimen	06
Type of Samples	Concrete Cylinders, 100 mm Diameter x200 mm Height
Standard Test Method	ASTM C 642-97
Type of Specimens	Hardened Concrete Cylinders
Date of Testing	27-01-2022 to 01-02-2022
Type of Testing	Density, Absorption, and Voids
Note	1) Results pertain to the samples supplied to the laboratory. 2) The samples have been consumed during testing.

Results:

S.No	Sample Identification	Absorption after Immersion (%)	Absorption after Immersion and Boiling (%)	Dry Bulk Density	Bulk Density After Immersion	Bulk Density After Immersion and Boiling	Apparent Density	Voids (%)
1-1	Without Admixture	3.026	2.162	2.217	2.227	2.313	6.540	3.026
1-2		2.934	2.153	2.206	2.216	2.298	6.316	2.934
1-3		3.345	2.154	2.216	2.226	2.321	7.207	3.345
2-1	With Admixture	2.591	2.198	2.245	2.255	2.331	5.695	2.591
2-2		3.016	2.195	2.252	2.262	2.351	6.622	3.016
2-3		2.791	2.197	2.248	2.258	2.340	6.132	2.791


Prepared By:

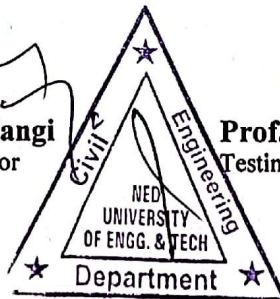

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Test Results for Water Permeability of Concrete

Name of Customer	M/S Aquafin Pakistan (Pvt.) Ltd For M/S NESPAK
Name of Project	KPT-Port Connectivity Bridge
No of Specimen	06
Type of Specimens	Concrete Cylinders, 150 mm Diameter x150 mm Height
Standard Test Method	EN 12390-8:2009
Cell Pressure of Chamber	0.50 N/mm ²
Type of Testing	Water Permeability of Concrete
Note	1) Results pertain to the samples supplied to the laboratory. 2) The samples have been consumed during testing.

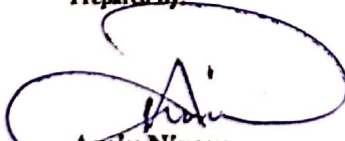
Results:

S.No	Identification	Date of Testing	Date of Testing	Depth of Water Penetration after 72 Hours (mm)	Water Collected after 72 Hours (ml)
1-1	Without Admixture Cement-430kg	30-12-2021	03-02-2022	20	00
1-2	Water-192 lit			20	00
1-3	Coarse Aggregate-1071 kg Fine Aggregate-674 kg			18	00
2-1	With Admixture Cement-430kg	30-12-2021	07-02-2022	08	00
2-2	Water-192 lit			05	00
2-3	Coarse Aggregate-1071 kg Fine Aggregate-674 kg Admixture-8.60 lit (2% by weight of cement)			07	00

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