

Name of work: Construction of Nandghar (Anganvadi) Building at Nesvad-4, Village (Mahuva-1) Ta: Mahuva, Dist: Bhavnagar			
FREQUENCY FOR TESTING OF MATERIAL			
ITEM	TEST	FREQUENCY	PERMISSIBLE LIMIT
CEMENT	SETTING TIME: 1).INITIAL TIME, 2).FINAL TIME	50 TON- 1 SAMPLE (15KG) 50 TO 100 TON- 2 SAMPLE 100 TO 200 TON- 3 SAMPLE 200 TO 300 TON- 4 SAMPLE 300 TO 500 TON- 5 SAMPLE 500 TO 800 TON- 6 SAMPLE 800 TO 1300 TON- 7 SAMPLE	1).INITIAL TIME NOT LESS THAN 30 MINUTES AND 2). FINAL TIME NOT LESS THAN 600 MINUTES
	FINENESS	1 TEST PER 5 SAMPLES (I.S SIEVE 90 MICRON)	90% OR MORE SHOULD PASS FROM 90 MICRON SIEVE
	CONSISITENCY	1 SAMPLE (DEPENDS ON EVERY SAMPLE)	ABOUT 30%
	COMPRESSIVE STRENGTH	3 DAYS, 7 DAYS, 28 DAYS.	FOR OPC: 110 KG/cm ² @ 3 DAYS 220 KG/cm ² @ 7 DAYS 310 KG/cm ² @ 28 DAYS
	FINENESS BY SPECIFIC SURFACE	1 TEST FOR 5 SAMPLES	FOR OPC: 2035 CM/GRAM FOR PPC: 3030 CM/GRAM
	CHEMICAL TEST (IS : 4032-986)	1 TEST PER 5 SAMPLES	MAGNESIUM OXIDE LESS THAN 6% SULPHUR TRI-OXIDE LESS THAN 2.75% IGNITION LOSS UPTO 5%
SAND	SILT CONTENT	1 TEST PER 150 CMT (1 SAMPLE 10 KG)	NOT MORE THAN 3 % OF ZONE-IV SAND SHOULD BE USE
	FINENESS MODULUS	1 TEST PER 250 CMT	
	Gradation test		
	Specific Gravity Water Absorption		
GRIT/ KAPCHI	Specific Gravity	FOR BMC, 2 TEST FROM ONE PLANT	AS PER SPECIFICATION
	Water Absorption Compressive Strength		
	GRADATION TEST	UP TO 100 CMT- 1 SAMPLE 101 TO 500 CMT- 3 SAMPLE 501 TO 1500 CMT- 5 SAMPLE 1501 TO 5000 CMT- 7 SAMPLE	NOT MORE THAN 35% FOR BITUMEN SURFACE
	FLAKINESS TEST		NOT MORE THAN 35%
	ELONGATION TEST		AS PER SPECIFICATION
	SOUNDNESS		
	CRUSHING		NOT MORE THAN 30%
	ABRASION TEST		
	STRIPING TEST	2 TEST FROM ONE PLANT & 1 TEST PER 100 TON	NOT MORE THAN 25%
	BITUMIN EXTRACTION TEST	MINIUMU 1 TEST OR AS REQUIRED	0.3% (OF DESIRED STANDARDS)
	PENETRATION TEST		UPTO .80 - 4% 80 TO 225 - 5% ABOVE 225 - 0%

Metal 40-63mm	Gradation Flakiness Abrasion Crushing Elongation	0 to 100 Cum = 1 Test 101 to 500 Cum , 3 Test 501 to 1500 Cum = 5 Test 1500 to 5000 Cum = 7 Test Carried out 1 test for Each work	AS PER SPECIFICATION
Asphalt VG-30	Penetration test Softening point test Ductility Viscosity test Specific wavily	1 to 1 Tanker 1 test 2 to 15 Tanker 2 test 16 to 50 Tanker 3 test 51 to 100 Tanker 4 test Remaining Every.50 Tanker 1 Test	AS PER SPECIFICATION
Stone Dust	Stripping Valuuue	1 to 100 Cum = 1 Test 101 to 500 Cum = 3 Test 501 to 1500 Cum = 5 Test 1500 to 5000 Cum = 7 Test	AS PER SPECIFICATION
BRICK	ABRASION TEST	20 BRICKS PER 2000 BRICKS, 32 BRICKS PER 35000 BRICKS, 50 BRICKS PER 50000 BRICKS	MODERATE
	WATER ABSORPTION TEST		NOT MORE THAN 20%
	COMPRESSIVE STRENGTH		NOT LESS THAN 35 KG/CM.SQ
C.C FLOORING TILES	WATER ABSORPTION TEST	6 TILES PER 2000 TILES	MAXIMUM 10 %
	TRANSVERSE TEST	12 TILES PER 2000 TILES	WET DRY 80 KG/CM. 120KG/CM
	ABRASION TEST	6 TILES PER 2000 TILES	AVERAGE ABRASION SHOULD NOT BE MORE THAN 3.5 MM
WATER	PH VALUE	1 TEST PER SOURCE (AFTER AS REQUIRED)	TDS (3000 MG/LT) SULPHATE (500 MG/LT) PH VALUE (6 TO 8) FLOURIDE (2000 MG/LT FOR PPC) FLOURIDE (1000 MG/LT FOR RCC) CARBONIC MATTER (200) ACARBONIC MATTER (3000)
	CHEMICAL ANALYSIS		
C.C CUBE	COMPRESSIVE STRENGTH (7 DAYS & 28 days)	1 to 5 cum = 1 Set 6 to 15 cum = 2 Set 16 to 30 cum = 3 Set 31 to 50 cum = 4 Set 51 cum and above = 4+1 one additional sample for each additional 50 cum (1 SET=6 CUBES)	AVERAGE OF SET SHOULD ACHIEVE : 65% STRENGTH OF GRADE @ 7 DAYS 99% STRENGTH OF GRADE @ 28 DAYS NOTE: INDIVIDUAL VARIATION SHOULD NOT BE MORE THAN ± 15 % OF THE AVERAGE
	C.C CUBE FOR BRIDGE WORKS	10 CUBES PER 50 CMT (5 CUBES FOR 7 DAYS & 5 CUBES FOR 28 DAYS)	
STEEL	ELONGATION TEST	1 TEST PER 40 TON	AS PER SPECIFICATION
	TENSILE STRENGTH		
	YIELD STRESS		
	WEIGHT & WIDTH		

SLUMP TEST	DIMENSION	BEFORE EVERY CASTING	LOW WORKABILITY: 25-75 MM MEDIUM WORKABILITY: 75-100 MM HIGH WORKABILITY: 100-150 MM NOTE: ONLY FOR AGGREGATE SIZE UPTO 38 MM
BITUMEN QAULITY	TEST AS REQUIRED	1 MT-1 SAMPLE 2 TO 15 MT-2 SAMPLE 16 TO 50 MT-3 SAMPLE 51 TO 150 MT-5 SAMPLE 151 TO 500 MT-8 SAMPLE ABOVE 501 MT -13 SAMPLE	AS PER I.S0-1201
CRUSHED METAL	GRADATION TEST	UP TO 100 CMT- 1 SAMPLE 101 TO 500 CMT- 3 SAMPLE 501 TO 1500 CMT- 5 SAMPLE 1501 TO 5000 CMT- 7 SAMPLE	AS PER I.S-2430 (1986)
	FLAKINESS TEST		
	IMPACT VALUE		
	ABRASION TEST		
	CRUSHING STRENGTH	MINIMUM 1 TEST	
SOIL	Grain size analysis	AS REQUIRED	AS PER SPECIFICATION
	Liquid Limit		
	Plasticity Index		
	Proctor Density Test		
	Moisture Content		
	Free swelling Test		
	CBR Test		
MURRUM	PLASTICITY INDEX	1 TEST PER 400 CMT	