

## Materials Handling & Quantity Requirements

**Dubai Central Laboratory**  
Engineering Materials Laboratory Section

Doc Ref. : RD-EM-0004  
Issue Date : 30/12/2010

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### AMENDMENTS & REVIEW HISTORY

Revision No.	Amendment Details	Issued on	Authorized by	Reviewed on	Reviewed by
0	Draft	12/07/2009	-	-	-
1	Issue for Use	01/10/2009	HOS		
2	Update	30/12/2010	HOS		

## A. MINIMUM MATERIALS REQUIREMENT FROM CUSTOMER

### A1. AGGREGATE & SOIL LABORATORY TEST PRODUCTS

DESC.	NOMINAL MAXIMUM SIZE	APPROXIMATE MINIMUM MATERIAL REQUIREMENT					SAMPLING METHOD
		2 TESTS OR LESS	3 TO 5 TESTS	6 TO 8 TESTS	9 TESTS OR ABOVE	ONLY CHEMICAL	
FINE AGG.	2.36 mm	10 Kg	15 Kg	20Kg	20 Kg	10 Kg	ASTM D75 - 09
	4.75 mm	10 Kg	15 Kg	20 Kg	20 Kg	10 Kg	
COARSE AGGREGATE	9.5 mm	40 Kg	80 Kg	120 Kg	140 Kg	15 Kg	
	12.5 mm	50 Kg	90 Kg	130 Kg	150 Kg	20 Kg	
	20 mm	75 Kg	150 Kg	175 Kg	200 Kg	30 Kg	
	25 mm	100 Kg	175 Kg	225 Kg	250 Kg	50 Kg	
	37.5 mm	150 Kg	250 Kg	300 Kg	350 Kg	75 Kg	
	50 mm	200 Kg	275 Kg	350 Kg	400 Kg	100 Kg	
	63 mm	250 Kg	350 Kg	450 Kg	550 Kg	125 Kg	
	75 mm	300 Kg	400 Kg	500 Kg	600 Kg	150 Kg	

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SOIL LAB. TEST PRODUCTS	AGGREGATE ROAD BASE	150 Kg	250 Kg	350 Kg	500 Kg	100 Kg	BS 1924 P1: 1990
	GRANULAR SUB BASE	150 Kg	250 Kg	350 Kg	450 Kg	100 Kg	
	WET MIX	150 Kg	250 Kg	350 Kg	500 Kg	100 Kg	
	SAND / CEMENTED-SAND / SUBKHA	50 Kg	75 Kg	90 Kg	90 Kg	15 Kg	
	COARSE GRAINED STABILIZED MATERIAL	NA	NA	NA	NA	* 50 Kg	
	MEDIUM GRAINED STABILIZED MATERIAL	NA	NA	NA	NA	* 25 Kg	
	FINE GRAINED STABILIZED MATERIAL	NA	NA	NA	NA	* 15 Kg	

\* SAME QUANTITY OF NON STABILIZED MATERIAL AND 5 kg OF CEMENT (IN SEPARATE BAGS) ALSO TO BE PROVIDED ALONG WITH THE STABILIZED MATERIAL

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### A2. ASPHALT BULK SAMPLE, MARSHALL , CORE, BITUMEN & LAB MIX DESIGN

ASPHALT BULK SAMPLE	AC / DBM BULK SAMPLE NOMINAL SIZE 20mm AND DOWN	ASPHALT CONTENT BY IGNITION & SIEVE ANALYSIS	13 kg	ASTM D979 : 2001	1) Bit. Calibration Factor/Ref. Req. no.
	AC / DBM BULK SAMPLE NOMINAL SIZE ABOVE 20mm		20 kg		
	AC / DBM BULK SAMPLE NOMINAL SIZE 20mm AND DOWN	ASPHALT CONTENT BY CENTRIFUGE EXTRACTION & SIEVE ANALYSIS	20 kg		
	AC / DBM BULK SAMPLE NOMINAL SIZE ABOVE 20mm		40 kg		
ASPHALT MARSHALL SAMPLE	AC MARSHALL SAMPLE	MARSHALL STUDY	8 Nos		1) Ref. Bitumen content / Req. no. 2) Gb (Sp. Of Bitumen) 3) Gmb (Design Density) 4) Gse 5) Gsb
		LOSS ON STABILITY	16 Nos		
		MARSHALL STUDY WITH LOSS ON STABILITY	16 Nos		
	DBM MARSHALL SAMPLE	MARSHALL STUDY	14 Nos		
		LOSS ON STABILITY	16 Nos		

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ASPHALT GYRATORY SAMPLE (LAB MIX)	GYRATORY SAMPLE	APA DRY/WET RUT/INDIRECT TENSILE STRENGTH	1. Agg. of each Hot Bin - 50 kg 2. Bitumen - 6 Litres	ASTM D75 ASTM D140	1. Gmm/Gyratory Compacted Specimen 2. Gsb 3. Bitumen Tests
ASPHALT GYRATORY COMPACTED SPECIMEN	GYRATORY SAMPLE	APA DRY/WET RUT	12 Nos.	AASTHO TP-4	Gyratory Compacted Specimen
ASPHALT GYRATORY COMPACTED SPECIMEN	GYRATORY SAMPLE	IDT	8 Nos.	AASTHO TP-4	Gyratory Compacted Specimen
ASPHALT CORE SAMPLE	AC / DBM CORE SAMPLE NOMINAL SIZE 20mm AND DOWN	DEGREE OF COMPACTION & THICKNESS	100mm Dia 2 Nos		1) Laying Date 2) Ref. Marshall Density / Req. no.
	AC / DBM CORE SAMPLE NOMINAL SIZE ABOVE 20mm	DEGREE OF COMPACTION & THICKNESS	150mm Dia 2 Nos		
BITUMEN	AC PEN. 40/50 / 60/70 / 85/100	ALL AVAILABLE TESTS	4 Litre	ASTM D140 : 2001	-
	MC30 / MC70 / SS1h	ALL AVAILABLE TESTS	3 Litre		
	COLD BITUMEN EMULSION	ALL AVAILABLE TESTS	8 LITERS	ASTM D140 : 2001	-
	AC PEN. 40/50 / 60/70 / 85/100	RTFO/PAV	4 Liters	ASTM D140 : 2001	-

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AGGREGATE	ALL IN AGGREGATE (HOT-BIN AGG.)	SE, LL, PI, STRIPPING TEST		ASTM D75: 09	
ASPHALT LAB-MIX SAMPLE (DESIGN)	AC / DBM BULK SAMPLE	THEORETICAL. MAX. SP.GR., CORRECTION FACTOR	1. Agg. of each Hot Bin - 100 kg 2. Bitumen - 12 Litres	NG	
	AC / DBM MARSHALL SAMPLE	MARSHALL - STUDY, COMP. TO REFUSAL, LOSS ON STABILITY		NG	
			PARTIAL DESIGN	3. Agg. of each Hot Bin - 50 kg 4. Bitumen - 6 Litres	

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### A3. CONCRETE & BLOCKS

<b>CONCRETE CUBE</b>	CONCRETE CUBE	COMP. STRENGTH & DIMENSION	3 Nos	Sampling at Field: • BS 1881 : P101: 1983 (AMD 6728:1991)  Sampling in the Lab: • BS 1881: P125: 1986 (AMD 6107: 1989) • BS EN 12390 - 2: 2000	
		WATER ABSORPTION	3 Nos		
		INITIAL SURFACE ABSORPTION	3 Nos.		
		DEPTH OF PENETRATION	3 Nos.		
		ELECTRICAL INDICATION OF CHLORIDE ION PENETRATION	2 Nos.		
		SULPHATE & CHLORIDE CONTENT, TYPE OF CEMENT	1 No.		
<b>CONCRETE - HARDENED</b>	CONCRETE CYLINDER	SPLITTING TENSILE	3 Nos.		
	CONCRETE PRISM	FLEXURAL STRENGTH	3 Nos.		
		INITIAL SURFACE ABSORPTION	3 Nos.		
	CONCRETE DUST	SULPHATE & CHLORIDE CONTENT	200 gms		AASHTO T260: 1997

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CONCRETE - HARDENED	CONCRETE CORE	TYPE OF CEMENT	1 No. of Core	BS 1881 P120: 1983 (AMD 6109: 1989)	
		COMP. STRENGTH	3 Nos. of Core (Dia 100 or 150mm)		
		WATER ABSORPTION	3 Nos. of Core (Dia 75 mm)	BS 1881 P122: 1983 (AMD 6108: 1989)	
	FLUSH KERBS / HEEL KERB / UPSTAND KERB	FLEXURAL STRENGTH, DIMENSION & WATER ABSORPTION	3 Nos (Additional Cut Specimen for Water Absorption: 3 Nos. - 100 x 100 x H mm )	BS 7263 P1: 1994	
CONCRETE - FRESH	FRESH CONCRETE (LAB MIX DESIGN)	<u>SAMPLING FRESH CONCRETE IN THE LAB:</u> <ul style="list-style-type: none"> <li>SLUMP, BLEEDING, AIR CONTENT</li> </ul> <u>PREPARATION OF SPECIMENS FOR:</u> <ul style="list-style-type: none"> <li>COMP.STRENGTH, TENSILE STRENGTH, FLEXTURAL STRENGTH, WATER ABSORPTION, ISAT, DEPTH OF PENETRATION, RCP, SO<sub>4</sub> &amp; Cl</li> </ul>	20 mm - 300 kg; 10 mm - 200 kg; 5 mm - 300 kg; Dune Sand -150 kg; Admixture - 2 Liter; Cement - 250 kg		

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<b>BLOCK</b>	MASONRY BLOCK	COMP. STRENGTH & DIMENSION	10 Nos.	DCLD-1C 01 PROD.CERT. OR BS 6073 P1 :1981 (AMD 4462:1984)	Reference Sample for each Request shall be provided.	
	FILLER BLOCK & THERMO BLOCK	COMP. STRENGTH & DIMENSION	10 Nos.			
		DENSITY	3 Nos.			
	AAC BLOCK	AAC BLOCK	COMP. STRENGTH ,DIMENSION & GROSS DRY DENSITY	6 NOS		DCLD IC01 PROD.CERT.
			DRYING SHRINKAGE	3 NOS		
			THERMAL CONDUCTIVITY	3 NOS		
<b>BLOCK</b>	AAC BLOCK	SULPHATE & CHLORIDE CONTENT	1 NO	DCLD IC01 PROD.CERT.	Reference Sample for each Request shall be provided.	
	CLAY BLOCK	CLAY BLOCK	COMP. STRENGTH & DIMENSION	6 NOS		ASTM-C 67-02 a (ADDENDUM 07-2002)
			GROSS DRY DENSITY	6 NOS		
			WATER ABSORPTION	5 NOS		
	PAVING BLOCK	PAVING BLOCK	COMP. STRENGTH & DIMENSION	10 Nos.		DCLD IC 01 PROD. CERT. OR BS 6717 P1: 1993
			WATER ABSORPTION	3 Nos.		BS 6717 P1: 1993 OR ASTM C140: 2001

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#### A4. CEMENT, STEEL, ROAD MARKING MATERIALS, LUBRICATING OILS & WATER

<b>CEMENT</b>	OPC / SRPC / MSRPC / OTHERS	PHYSICAL, MECHANICAL & CHEMICAL TESTS	40 kg	BS EN 196 P7 : 1992	
		CHEMICAL TESTS	5 kg		
<b>STEEL</b>	DEFORMED CARBON STEEL BAR	TENSILE, YIELD, ELONGATION & REBEND (Test Size up to 50 mm Ø)	1000 mm long – 10 Nos.	BS 4449: 1997 or BS 4449: 2005	<ul style="list-style-type: none"> <li>Each specimen shall be sampled from different bars of the same Cast/Heat/Lot/Unit</li> <li>Copy of manufacture's (mill's) certificate of each size intended for testing to be provided</li> </ul>
	DEFORMED CARBON STEEL BAR	CHEMICAL ANALYSIS (Test Size 8 to 50 mm Ø)	40 – 50 mm long 8 Nos.	BS 4449: 1997 or BS 4449: 2005	<ul style="list-style-type: none"> <li>Copy of manufacture's (mill's) certificate of each size intended for testing to be provided</li> </ul>

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<b>STEEL</b>	HIGH TENSILE STEEL WIRE & STRAND	TENSILE (BS) Test Size 8 to 20mm Ø	1300 mm Long 10 Nos.	BS 5896: 1980	
		TENSILE (ASTM) Test Size 6 to 20mm Ø		ASTM A 416-06	
	STEEL PIPE / POST/ BEAM / SPACER / RAIL / BAR Etc.	THICKNESS OF COATING	Lot Size 1 to 3 : All Nos.	BS EN ISO 1461: 1999	
			Lot Size 4 to 500 : 3 Nos.		
	ANCHOR BOLT		Lot Size 501 to 1200 : 5 Nos.		
			Lot Size 1201 to 3200 : 8 Nos.		
NUT & WASHER		Lot Size 3201 to 10000 : 13 Nos.		Set of Nut & Washer	
	Lot Size >10000 : 20 Nos.				
	CHAIN LINK WIRE ≤ 3mm DIA	MASS OF ZINC COATING OF STEEL WIRE	6 Meter Long	BS 443: 1982	
	CHAIN LINK WIRE 3 TO 10 mm DIA		8 Meter Long		

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ROAD MARKING MATERIAL	THERMO PLASTIC	HEAT STABILITY, SOFTENING POINT, LUMINACE FACTOR, FLOW RESISTANCE, SKID RESISTANCE, RELATIVE DENSITY	3 Nos of 25 kg Bags from Same Batch.	BS 3262 P1: 1989 APPENDIX "B"	
	GLASS BEADS	GRADING OF GLASS BEADS	3 Nos of 25 kg Bags from Same Batch.	BS 6088: 1981 APPENDIX "A"	
LUBE OIL	LUBRICATING OIL	KINEMATIC VISCOSITY, POUR POINT, FLASH POINT, FOAMING CHARACTERISTICS, SULPHATED ASH, APPARENT VISCOSITY	3 Litres	UAE STD No.125: 1992	
WATER	WATER FOR CONCRETE	TOTAL DISSOLVED SOLIDS, PH VALUE, SULPHATE CONTENT, CHLORIDE CONTENT	3 Litres	BS 3148: 1980	

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### A5. THERMAL INSULATION MATERIALS

BLOCK / BOARD / SLAB / PANEL	MINERAL FIBRE, PERLITE, CELLULAR GLASS, CELLULOSIC FIBRE, ORGANIC INSULATION	DIMENSION & DENSITY	5 Nos. of sample (commercial size) from same Lot	ASTM C 390: 1979 (R 1995)	Sample Size not less than 100 mm width and 200 mm length
		THERMAL CONDUCTIVITY BY HEAT FLOW METER	5 Nos. of sample size not less than 0.1 m <sup>2</sup> and minimum width of 300mm	ASTM C 390: 1979 (R 1995)	Test applicable only to 5 mm thick or above
		LENGTH AND WIDTH AS PER BS EN 822-95	3 nos. of full size product	N.G.	
		THICKNESS AS PER BS EN 823-95	3 nos. of full size product	N.G.	
		APPARENT DENSITY AS PER BS EN 1602-97	5 nos. of full size product	N.G.	
		WATER VAPOR TRANSMISSION AND PERMEANCE AS PER ASTM E 96	8 nos. of sample from same lot (Each sample not less than 12"Square)	ASTM C 390: 1979 (R 1995)	
		DIMENSIONAL STABILITY UNDER CONSTANT NORMAL LAB CONDITION AS PER BS EN 1603-97	Minimum 3 nos. of sample from same lot (full size product)	N.G.	
BLOCK / BOARD / SLAB / PANEL	MINERAL FIBRE, PERLITE, CELLULAR GLASS, CELLULOSIC FIBRE, ORGANIC INSULATION	DIMENSIONAL STABILITY UNDER SPECIFIED TEMPERATURE AND RELATIVE HUMIDITY AS PER BS EN 1604-97	Minimum 6 nos. of sample from same lot of with original product thickness	N.G.	<ul style="list-style-type: none"> <li>• Test condition (Temp. and RH) should be specified.</li> </ul>

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		COMPRESSIVE RESISTANCE AS PER ASTM C 165 PROCEDURE A / B	Minimum 8 nos. of full size product and width > 150 mm	ASTM C 390: 1979 (R 1995)	<ul style="list-style-type: none"> <li>Procedure should be mentioned (A or B).</li> <li>For procedure A, thickness &gt; 13 mm.</li> <li>For procedure B, thickness &gt; 25 mm.</li> <li>The desired deformation in % should be mentioned.</li> </ul>
		COMPRESSIVE STRENGTH / COMPRESSIVE STRESS at 10% DEFORMATION AS PER BS EN 826	Minimum 8 nos. of full size product and with original product thickness	N.G.	<ul style="list-style-type: none"> <li>Specify the specimen dimension for test. Preferred thickness &gt; 20 mm</li> </ul>
		BEHAVIOR OF MATERIAL IN A VERTICAL TUBE FURNACE at 750°C (NON-COMBUSTIBILITY TEST)	Minimum 8 nos. of sample from same lot / batch with thickness not less than 50 mm.	ASTM C 390: 1979 (R 1995)	
	MINERAL FIBRE	NON FIBROUS (SHOT)	3 Nos. of sample from same Lot (Each sample not less than 200 gm)	ASTM C 390: 1979 (R 1995) & ASTM E 178: 1994	
		BINDER CONTENT	3 Nos. of sample from same Lot (Each sample not less than 500 gm)	ASTM C 390: 1979 (R 1995)	

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BLOCK / BOARD / SLAB / PANEL	MINERAL FIBRE	ORGANIC MATTER	3 Nos. of sample from same Lot (Each sample not less than 200 gm)	BS 2972: 1989 SEC 1	
		COARSE SHOT CONTENT AS PER BS 2972	One sample of not less than 200 gm	BS 2972: 1989	
	CELLULAR GLASS	WATER ABSORPTION AS PER ASTM C 240	6 Nos. of sample from same Lot (Each sample not less than 0.4 m <sup>2</sup> )	ASTM C 390: 1979 (R 1995)	<ul style="list-style-type: none"> <li>Preferred size 450 x 300 mm and 50 mm thick</li> </ul>
	MINERAL FIBRE, CELLULAR GLASS, PERLITE	BULK DENSITY AS PER BS 2972 SEC.3 - 1989	3 Nos. of sample from same lot (Each sample not less than 0.05 m <sup>2</sup> )	BS 2972: 1989 SEC 1	
		MOISTURE CONTENT	8 Nos. of sample from same Lot (Each sample not less than 0.2 m <sup>2</sup> )	ASTM C 390: 1979 (R 1995)	<ul style="list-style-type: none"> <li>Not less than 200 mm width</li> </ul>
		MOISTURE CONTENT AS RECEIVED AS PER BS 2972	3 Nos. of sample from same Lot (Each sample not less than 200 gm)	BS 2972: 1989	
	MINERAL FIBRE, PERLITE, CELLULOSIC FIBRE, ORGANIC INSULATION	WATER ABSORPTION TOTAL IMMERSION AS PER BS 2972	12 Nos. of sample from same lot	BS 2972: 1989	<ul style="list-style-type: none"> <li>Minimum size 150 x 150 and thickness not less than 25 mm</li> </ul>
		SHORT TERM WATER ABSORPTION AS PER BS EN 1609-97 METHOD A	8 Nos. of sample from same lot (Each sample not less than 200 x 200 mm)	BS 2972: 1989 SEC 1	
		WATER ABSORPTION AS PER ASTM C 209	6 Nos. of sample from same Lot (Each sample not less than 0.4 m <sup>2</sup> )	ASTM C 390: 1979 (R 1995)	<ul style="list-style-type: none"> <li>Not less than 305 mm width</li> </ul>

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BLOCK / BOARD / SLAB / PANEL	MINERAL FIBRE, PERLITE, CELLULOSIC FIBRE, ORGANIC INSULATION	LONG TERM WATER ABSORPTION BY PARTIAL IMMERSION AS PER BS EN 12087-97 METHOD 1A	8 Nos. of sample from same lot (Each sample not less than 200 x 200 mm)	BS 2972: 1989 SEC 1	
		LONG TERM WATER ABSORPTION BY TOTAL IMMERSION AS PER BS EN 12087-97 METHOD 2A			
		TENSILE STRENGTH PARALLEL TO FACES AS PER BS EN 1608	6 Nos. of sample from same lot with length > 1000 mm, width > 500 mm and thickness > 25 mm	N.G.	
	ORGANIC INSULATION	WATER ABSORPTION (POLY STYRENE) AS PER ASTM C 272	10 Nos. of sample from same Lot (Each sample not less than 305 x 305 mm)	ASTM C 390: 1979 (R 1995)	<ul style="list-style-type: none"> <li>Preferred thick: 25mm.</li> </ul>
BLANKET / MATTRESS	MINERAL FIBRE	THERMAL CONDUCTIVITY BY HEAT FLOW METER	5 No of sample size not less than 0.1 m <sup>2</sup> and min width of 300 mm	ASTM C 390: 1979 (R 1995)	<ul style="list-style-type: none"> <li>Test applicable to 5 mm thick or above</li> </ul>
		MOISTURE CONTENT	4 Nos. of samples from same Lot (Each sample not less than 0.2 m <sup>2</sup> )	ASTM C 390: 1979 (R 1995)	<ul style="list-style-type: none"> <li>Not less than 200 mm width</li> </ul>
		NON FIBROUS (SHOT)	3 Nos. of sample from same Lot (Each sample not less than 200 gm)	ASTM C 390: 1979 (R 1995) & ASTM E 178:1994	
		BINDER CONTENT	3 Nos. of sample from same Lot (Each sample not less than 500 gm)	ASTM C 390: 1979 (R 1995)	

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BLANKET / MATTRESS	MINERAL FIBRE	ORGANIC MATTER	3 Nos. of sample from same Lot (Each sample not less than 200 gm)	BS 2972:1989 SEC 1	
		WATER ABSORPTION	6 Nos. of sample from same Lot (Each sample not less than 0.4 m <sup>2</sup> )	ASTM C 390: 1979 (R 1995)	• Not less than 305 mm width
		BULK DENSITY AS PER BS 2972 SEC.3 - 1989	3 Nos. of sample from the same lot (Each sample not less than 0.05 m <sup>2</sup> area)	BS 2972: 1989 SEC 1	
		SHORT TERM WATER ABSORPTION AS PER BS EN 1609- 97 METHOD A	8 Nos. of sample from the same lot (Each sample not less than 200 x 200 mm)	BS 2972: 1989 SEC 1	
		LONG TERM WATER ABSORPTION BY PARTIAL IMMERSION AS PER BS EN 12087-97 METHOD 1A			
		LONG TERM WATER ABSORPTION BY TOTAL IMMERSION AS PER BS EN 12087-97 METHOD 2A			
		THICKNESS AND DENSITY AS PER ASTM C-167-98	5 Nos. of sample of commercial size from the same lot	ASTM C 167 : 1989 & ASTM C 390: 1979 (R 1995)	
		LENGTH & WIDTH AS PER BS EN 822-95	3 Nos. of full size product	N.G.	

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BLANKET / MATTRESS	MINERAL FIBRE	THICKNESS AS PER BS EN 823-95	3 Nos. of full size product	N.G.	
		COMPRESSIVE STRENGTH AS PER ASTM C 165 PROCEDURE A / B	Minimum 8 nos. of full size product and width > 150 mm	ASTM C 390: 1979 (R 1995)	<ul style="list-style-type: none"> <li>Procedure should be mentioned (A or B)</li> <li>For procedure A, thickness &gt; 13 mm.</li> <li>For procedure B, thickness &gt; 25 mm.</li> <li>The desired deformation in % should be mentioned.</li> </ul>
		COMPRESSIVE STRENGTH / COMPRESSIVE STRESS AT 10% DEFORMATION AS PER BS EN 826	Minimum 8 nos. of full size product and with original product thickness	N.G.	<ul style="list-style-type: none"> <li>Specify the specimen dimension. Preferred thickness &gt; 20 mm</li> </ul>
		BEHAVIOR OF MATERIAL IN A VERTICAL TUBE FURNACE at 750°C (NON-COMBUSTIBILITY TEST)	Minimum 8 nos. sample from the same lot / batch with thickness not less than 50 mm.	ASTM C 390: 1979 (R 1995)	
		APPARENT DENSITY AS PER BS EN 1602-97	4 Nos. of full size product	N.G.	
		MOISTURE CONTENT AS RECEIVED AS PER BS 2972	3 Nos. of sample from same Lot (Each sample not less than 200 gm)	BS 2972: 1989	
		COARSE SHOT CONTENT AS PER BS 2972	One sample of 200 gm	BS 2972: 1989	

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BLANKET / MATTRESS	MINERAL FIBRE	WATER ABSORPTION TOTAL IMMERSION AS PER BS 2972	12 Nos. of sample from same lot (Min.size 150 x 150 and thickness not less than 25 mm)	BS 2972: 1989	
		WATER VAPOR TRANSMISSION AND PERMEANCE AS PER ASTM E-96	8 nos. sample from same lot (Each sample not less than 12" Square)	ASTM C 390: 1979 (R 1995)	
NON FIBROUS (SHOT)		3 Nos. of sample from same Lot (Each sample not less than 200gm)	ASTM C 390 : 1979 (R 1995) & ASTM E 178: 1994		
BINDER CONTENT		3 Nos. of sample from same Lot (Each sample not less than 500gm)	ASTM C 390: 1979 (R 1995)		
ORGANIC MATTER		3 Nos. of sample from same Lot (Each sample not less than 200gm)	BS 2972:1989 SEC 1		
BULK DENSITY AS PER BS 2972 SEC. 3 - 1989		3 Nos. of sample from same Lot (Each sample not less than 250 mm length)	BS 2972:1989 SEC 1		
PIPE INSULATION					

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PRODUCT	DESCRIPTION	TEST	MINIMUM MATERIAL REQUIREMENT	SAMPLING METHOD	REMARKS
POLYPROPYLENE PIPE	PPR PIPE	HEAT REVERSION SURFACE FINISH OVALITY DIMENSION	3 Nos. of size 200 x 200mm 3 full size product 3 full size product 3 full size product	DCL - IC - 99	All these tests can be performed by using 3 full size products. Ovality can be performed only in the factory immediately after production
WATER PROOFING MEMBRANE	BITUMINOUS WATER PROOFING MEMBRANE	WATER VAPOR TRANSMISSION TENSILE PROPERTIES OF WATER PROOFING TENSILE PROPERTIES FOR FLEXIBLE SHEET COMPUT STABILITY	3 X 1M SAMPLE	DCL IC-99	IF ONLY WATER VAPOR TRANSMISSION IS REQUIRED, THEN 8 X 300 X 300mm ONLY IS REQUIRED
GEOTEXTILES	GEOTEXTILE FABRIC	GRAB BREAKING LOAD	3 X 1M SAMPLE	DCL IC-99	
PAINT & COATING	PAINT FOR EXTERNAL SURFACE	LIGHT REFLECTANCE VALUE LEAD CONTENT OF PAINT SOLAR REFLECTANCE INDEX	150 X 150 mm PAINT LAYER 9NOS. OR 2 LITRE SAMPLE	DCL IC-99	

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PRODUCT	DESCRIPTION	TEST	MINIMUM MATERIAL REQUIREMENT	SAMPLING METHOD	REMARKS
PIPE INSULATION	MINERAL FIBRE, CELLULAR GLASS, PERLITE	DENSITY & DIMENSION AS PER ASTM C302:1995	3 Nos. of sample from same lot	ASTM C 390: 1979 (R 1995)	
		BEHAVIOR OF MATERIAL IN A VERTICAL TUBE FURNACE at 750°C (NON-COMBUSTIBILITY TEST)	Minimum 8 nos. of sample from the same lot / batch with thickness not less than 50 mm.	ASTM C 390: 1979 (R 1995)	
LOOSE WOOL / LOOSE FILL	MINERAL FIBRE	NON FIBROUS (SHOT)	3 Nos. of sample from same Lot (Each sample not less than 200gm)	ASTM C 390 : 1979 (R 1995) & ASTM E 178: 1994	
		BINDER CONTENT	3 Nos. of sample from same Lot (Each sample not less than 500gm)	ASTM C 390: 1979 (R 1995)	
		ORGANIC MATTER	3 Nos. of sample from same Lot (Each sample not less than 200gm)	BS 2972:1989 SEC 1	
	VERMICULITE / PERLITE	BULK DENSITY	0.2 m <sup>3</sup>	ASTM C 390: 1979 (R 1995)	

*Note : PLEASE REFER TO THE SAMPLE MANAGEMENT FOR SAMPLES WHICH ARE NOT INCLUDED IN THE LIST OR ANY FURTHER CLARIFICATION IS REQUIRED.*

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### B. MINIMUM MATERIALS REQUIREMENT FOR TESTING UNITS

#### B1. STRUCTURAL UNIT

<b>CONCRETE</b>	132	Splitting Tensile Strength Of Cylindrical Concrete	3 NOS.	ASTM C496
	137	Compressive Strength Of Concrete Cubes	3 NOS.	BS 1881:P116 :AMD6720
	138	Compressive Strength Of Concrete Cores	3 NOS.	BS 1881:P120 AMD6109
	139	Water Absorption Of Hardened Concrete	3 NOS.	BS 1881:P122 AMD6108
	450	Flexural Strength of Concrete Prism	3 NOS.	BS EN 12390 Part 5
	472	Initial Surface Absorption Test	3 NOS.	BS 1881:P208
	487	Depth of Penetration of Hardened Concrete	3 NOS.	BS EN 12390 Part 8
<b>MIX DESIGN</b>	125	Slump Test On Fresh Concrete	Aggregate for each fraction - 200 kg. Cement - 100-120 kg. Admixture - min.1 ltr.	BS 1881:P102 AMD6727
	128	Making Test Cubes From Fresh Concrete		BS 1881:P108 AMD6105
	137	Compressive Strength Of Concrete Cubes		BS 1881:P116 AMD6720
	139	Water Absorption Of Hardened Concrete		BS 1881:P122 AMD6108
	140	Mixing & Sampling Fresh Concrete In Lab		BS 1881:P125 AMD6107
	469	Bleeding of Fresh Concrete		ASTM C232
	470	Air Content of Fresh Concrete		BS EN 12350 Part 7
	472	Initial Surface Absorption Test		BS 1881:P208
	487	Depth of Penetration of Hardened Concrete		BS EN 12390 Part 8
<b>STEEL</b>	451	Thickness of Coating	As per Table 1 of std.	BS EN ISO 1461
	473	Tensile Strength for Prestress Strand	3 NOS.	BS 5896
	474	Tensile Strength for Carbon Steel Bars	3 NOS.	BS 4449
	475	Rebend Test for Carbon Steel Bars	1 NO.	BS 4449

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<b>MASONRY &amp; THERMO BLOCK</b>	1	Compressive Strength Of Solid Masonry Blocks	10 NOS.	BS 6073:P2:AMD4508
	2	Compressive Strength Of Hollow Masonry Block	10 NOS.	BS 6073:P2:AMD4508
	3	Compressive Strength Of Filler Blocks	10 NOS.	BS 6073:P2:AMD4508
	4	Dimensions Of Solid Masonry Blocks	10 NOS.	BS 6073:P1:AMD4462
	5	Dimensions Of Hollow Masonry Blocks	10 NOS.	BS 6073:P1:AMD4462
	6	Dimensions Of Filler Blocks	10 NOS.	BS 6073:P1:AMD4462
	7	Block Density Filler	3 NOS.	BS 6073:P2:AMD4508
<b>AAC &amp; CLAY BLOCK</b>	518	Water Absorption of Bricks & Structural Tiles	5 Nos	ASTM C67-02 A CL 8.3
	528	Dimension of Autoclaved Aerated Concrete	6 NOS	BSEN 772-16
	531	Drying shrinkage of Autoclaved Aerated Concrete	3 No.	BSEN 680:1994
	547	Gross Dry Density Of Masonary Unit	6 (AAC) 3 NOS (SCT)	BS EN 772-13 :2000 CL:7.3
	548	Compressive Strength Of Masonary Unit	6 NOS	BS EN 772-1 : 2000
<b>P/BLOCKS</b>	11	C. Strength Of Paving Blocks Non-Rect.	10 NOS.	BS 6717:P1
	12	C. Strength Of Paving Blocks Rect.	10 NOS.	BS 6717:P1
	13	Dimension Of Paving Blocks Non Rectangular	10 NOS.	BS 6717:P1
	14	Dimension Of Paving Block Rectangular	10 NOS.	BS 6717:P1
	108	Water Absorption Of Paving Blocks	3 NOS.	ASTM C140
<b>KERBS</b>	147	Dimension Of Kerbs, Channels & Edgings	3 NOS.	BS 7263:P1
	148	T. Strength Of Kerbs, Channels & Edging		BS 7263:P1
	149	W. Absorption Of Kerbs, Channels & Edgings		BS 7263:P1
<b>CEMENT</b>	379	Making Test Specimens - Prisms	3 KG.	BS EN 196-1
	380	Compressive Strength Of Cement		BS EN 196-1
	381	Flexural Strength Of Cement		BS EN 196-1
	448	Fineness Of Cement	1 KG	BS EN 196-6 :1992

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THERMAL INSULATION MATERIALS	403	Apparent Density of Thermal Insulation	5 NOS.	BS EN 1602
	442	Dimension & Density of Block & Board Insulation	5 NOS.	ASTM C303
	443	M/C of Thermal Insulation of Mineral Fiber	4 NOS.	ASTM C610
	444	Non-fibrous (shot) Content of Thermal Insulation	3 NOS. (30 g. each)	ASTM C1335
	445	Binder Content Determination	3 NOS.	ASTM C1139
	446	Organic Matter present in Inorganic Thermal Insulation	3 NOS.	BS 2972 Sec. 16 Method 1
	447	Water Absorption (2h) Thermal Insulation	3 NOS.	ASTM C209
	452	Thermal Transmission Properties by Heat Flow Meter (Thermal Conductivity & Resistance)	3 NOS.	ASTM C518
	453	Bulk Density of Pre-Formed Flat Material (Inorganic Insulation)	3 NOS.	BS 2972 Sec. 3
	454	Bulk Density of Pre-Formed Pipe Section (Inorganic Insulation)	3 NOS.	
THERMAL INSULATION MATERIALS	455	Density and Dimension of Pre-Formed Pipe Covering Type Insulation	3 NOS.	ASTM C302: Procedure 1
	456	Long Term (28 days) Water Absorption By Partial Immersion	4 NOS.	BS EN 12087 : Method 1A
	457	Long Term (28 days) Water Absorption By Total Immersion	4 NOS.	BS EN 12087 : Method 2A
	458	Short Term (24 h) Water Absorption By Partial Immersion	4 NOS.	BS EN 1609 : Method A
	459	Water Absorption (Cellular Glass Insulation)	3 NOS.	ASTM C240
	460	Thickness & Density of Blanket & Batt Insulation	5 NOS.	ASTM C167
	461	Water Vapor Transmission of Insulation	4 NOS.	ASTM E-96 : 00
	462	Dimensional Stability Under Constant Normal Lab. Condition (23°C / 50% RH)	3 NOS.	BS EN 1603 : Method A
	463	Moisture Content as Received of Inorganic Insulation	3 NOS.	BS 2972 Sec 11 :
	464	Water Absorption (Total Immersion) of Inorganic Insulation	6 NOS.	BS 2972 Sec 12 : 89

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THERMAL INSULATION MATERIALS	465	Water Absorption (Polystyrene)	5 NOS.	ASTM C272 : (R-96)
	466	Coarse Shot Content of Inorganic Insulation	1 NO.	BS 2972 Sec 14 :
	467	Length & Width of thermal Insulation	3 NOS	BS EN 822 :
	468	Thickness of Thermal Insulation	3 NOS.	BS EN 823 :
	477	Compressive Resistance of Thermal Insulation	4 NOS.	ASTM C165 : Procedure A/B
	478	Compressive Strength / Compressive Stress at 10% Deformation	5 NOS.	BS EN 826 :
	479	Dimensional Stability Under Specified Temperature and Humidity Conditions	3 NOS.	BS EN 1604 :
	481	Behavior of Material in a Vertical Tube Furnace at 750°C	4 NOS.	ASTM E-36 :
	482	Tensile Strength Parallel to Face of Thermal Insulation	3 NOS.	BS EN 1608 :
	500	Bulk density of granular loose fill insulation	3 Bags	ASTN C-520
	506	Flexural Strength of inorganic Insulation	5 NOS.	BS-2972 Sec 18
	507	Thermal & Humid aging (Dimensional stability)at specified condition	2 NOS	ASTM D 2126
	508	Bending strength or Bending stress at given deflection	3 NOS.	BSEN 12089 method B
	509	Water vapor sorption of unfaced mineral fibre Insulation	3 NOS.	ASTN C-1104/1104M
	546	Workmanship, Finish and appearance of RCPS Insulation	5 NOS.	ASTM C 578
	550	Thermal transmission properties by heat flow Meter (AAC Block)	1NOS	ASTM C 518
	551	Compressive Strength of rigid cellular plastics	5 NOS.	ASTM D 1621
	552	Apparent Density of Rigid cellular Plastics	3 NOS.	ASTM D 1622
560	Flexural Strength of board type Insulation	4 NOS.	ASTM C 203	

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### B2. CHEMICAL ANALYSIS UNIT

<b>AGGREGATE</b>	9	Acid soluble chloride of sand & agg.	Appx.100gms passing 150µm sieve	Clause 6.3 (BS 812 P117)
	10	Acid soluble sulphate of sand & agg.	Appx.100gms passing 150µm sieve	BS EN 1744-1 : 1998
	256	Water soluble sulphate of agg.	Appx.500gms & 2kg /specimen of fine & coarse aggregate respectively; passing 20mm sieve	BS EN 1744-1 : 1998
	258	Acid soluble material in fine agg.	Appx.400gms passing 5mm sieve	Clause 7(BS 812 P119)
	262	Organic impurities of fine agg.	Appx.450gms (Air Dry)	Clause 7(ASTM C40)
	333	Water soluble Chloride of agg.	Appx.500gms & 2kg /specimen of fine & coarse aggregate respectively; passing 20mm sieve	Clause 8 (BS 812 P117)
<b>SOIL</b>	259	Organic matter content of soil	Appx.100gms passing 425µm sieve	Clause 3.4.2(BS 1377:P3)
	300	Total sulfate of soil	Appx.100gms passing 425µm sieve	Clause 5.2.3 (BS 1377:P3)
	302	Acid soluble chloride of soil	Appx.100gms passing 150µm sieve	Clause 7.3.3.2(BS 1377:P3)
	303	Water soluble sulphate of soil	Appx.120gms passing 425µm sieve	Clause 5.3.2 (BS 1377:P3)
	304	pH of soil	Appx.100gms passing 2mm sieve	Clause 9.4(BS 1377:P3)
<b>SOIL</b>	354	Water soluble chloride of soil	Appx.500gms passing 2mm sieve	Clause 7.2.3.2(BS 1377:P3)
	360	Carbonate content of soil	Aprx.50gms passing 425µm sieve	Clause 6.2.2(BS 1377:P3)
<b>T.P. ROAD MARKING MATERIAL</b>	397, 398, 399, 400 & 429	Testing of Thermoplastic Road Marking Materials: • Heat Stability, Softening Point, Luminance Factor, Flow Resistance & Skid resistance	Appx.12kg	Clause B.2 (BS 3262:P1)

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LUBRICATING OIL	382, 383, 384, 385, 386 & 387	Testing of lubricating Oil: • Kinematic Viscosity, Pour point, Flash points (open & closed cup), Foaming characteristic & Sulphated Ash.	Appx. 2 LTR	Not required
WATER	296, 297, 298 & 299	Testing of Water: • Chloride, PH, Total dissolved solid & Sulphate	Appx. 3 LTR	Not required
CEMENT	255, 373	Chloride content & Chemical analysis.	Appx. 100g passing 150µm sieve	Clause 6 & ND.4 (BS EN 196-2) & Clause 3.5 (BS EN 196-21)
CONCRETE	274 & 275	Sulphate & Chloride content of Hardened conc.	Appx. 100g passing 150µm sieve	Clause 4.5 (BS 1881:P124)
	361	Type of Cement	At least 10 solid piece of conc. nom. size of 5mm	Clause 8.3.4 (BS 1881:P124)
	427	Electrical Indication of CL. Permeability	2 no. Concrete cube	(ASTM C 1202)
BLOCK	8 & 274	Chloride content of conc.	Appx. 100g passing 150µm sieve	Clause 4.5 (BS 1881:P124)
STEEL WIRE	293	Mass of zinc coating of steel wire	App. 5m length wire for dia ≤ 3mm or App. 3m length for dia > 3mm	Not required
GLASS BEADS	260	Grading of Glass Beads	Appx. 1200gms	Appendix A (BS 6088)
STABILIZED MATERIAL	428	Cement content of cement stabilized mat.	100gm of natural, stabilized & cement passing 425µm sieve	(BS 1924 : P2)

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### B3. CONSTRUCTION MATERIALS UNIT

			Nominal Size(mm)	Mass (kg)		
			63	40		
	15 / 357 & 351	Sieve Analysis of Aggregate	50	28	ASTM C 702 : 1998	
			40	18		
			28	8.5		
			20	4.5		
			14	2.5		
			10	1.5		
			6	0.4		
			5	0.3		
			4	0.2		
			< 4	0.2		
	16	Specific Gravity of Fine Agg.	1.5 kg			
AGGREGATE	26 / 27	% Fully & Partially Crushed Faces of Aggregate	Nominal Size(mm)	Mass (kg)		
			37.5	15		
			25	10		
			20	5		
			12.5	2		
				10	1	
	28 / 29 / 31	Aggregate Crushing Value / Ten Percent Fines Value(Dry & Soaked):		kg		
			All-in agg. 40 max size	60		
			All-in agg. 20 max size	45		
			Graded Agg. 40 to 5	40		
Graded Agg. 20 to 5			25			
		Graded Agg. 14 to 5	15			
30 / 85	Flakiness & Elongation Index of Aggregate	Nominal Size(mm)	Mass (kg)			
		63	50			
		50	35			
		37.5	15			
		28	5			
		20	2			
		14	1			
10	0.5					

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	Test Code	Test Name	Nominal Size(mm)	Mass (kg)	
AGGREGATE	54	Soundness of Aggregate	2.36	0.3	ASTM C 702 : 1998
			4.75	0.5	
			9.5	1.5	
			12.5	2.5	
			19	5	
			25	10	
			37.5	15	
			50	20	
			63	35	
	75	60			
	57 / 58	Los Angeles Abrasion of Small Size and Large Size & Coarse Aggregate	75	30	
			63	30	
			50	30	
			37.5	30	
			25	25	
			19	25	
			12.5	25	
	59	Particle Density & Water Absorption of Coarse Aggregate	> 10	4	
			40 - 5	2	
	64	Sand Equivalent Value	< 4.75	2	
	67	Material Finer than 75 Microns	≤4.75	0.3	
			9.5	1	
			19	2.5	
			37.5	5	
	71	Sieve Analysis of Aggregate	2.36	0.3	
			4.75	0.5	
			9.5	1.5	
			12.5	2.5	
19			5		
25			10		
37.5			15		
50			20		
63			35		
75	60				
72	Clay Lumps & Friable Particles in Aggregate	2.36	0.3		
		4.75	0.5		
		9.5	1.5		
		12.5	2.5		
		19	5		
		25	10		
		37.5	15		
		50	20		
		63	35		
75	60				

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AGGREGATE	86	Shell Content in Coarse Aggregate	63	45	ASTM C 702 : 1998			
			50	29				
			37.5	13				
			28	5				
20			2.5					
14			1					
10	0.5							
335	Sieve Analysis of Filler	0.2 kg						
337	Relative Density of Filler	0.2 kg						
AGGREGATE	338	Coating & Stripping	1 kg					
	344	Specific Gravity of Coarse Aggregate	≤12.5	2				
			19	3				
			25	4				
			37.5	5				
			50	8				
			63	12				
	75	18						
352	Particle Density & Water Absorption of fine Aggregate	2 kg						
ASPHALT	35 / 36	Theoretical Maximum Specific Gravity of Bituminous Paving Mixtures (Field Samples)	Nominal Size(mm)	Mass (kg)				
			37.5	4				
			25	2.5				
			19	2				
			12.5	1.5				
			9.5	1				
	48	Extraction of Bitumen from Bituminous Paving Mixtures (Field Samples)	4.75	0.5				
			9.5	1.5				
			12.5	2.5				
			19	5				
	377/35	Theoretical Max. Sp. Gravity (Lab preparation & Test)	25	10				
			37.5	15				
			52 / 495 / 496	Bulk Sp.Gr., Stability/Flow (Lab preparation & Test)	<ul style="list-style-type: none"> <li>• HB Aggregate 20 kg of Each Size</li> <li>• 3 Litres of Bitumen</li> </ul>			
							52 / 521 52 / 522	Loss on Stability (Lab preparation & Test)
377 / 374	Correction Factor (Lab preparation & Test)							
				Same Sample as received				

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Materials	Test Code	Test Name	Quantity Required for Testing Unit	Standard Test Method												
	35/377 52/495/496 377/374 52/521 523/524	Full Mix Design	<ul style="list-style-type: none"> <li>HB Agg (C.A.)- 40 kg of Ea.Size</li> <li>HB Agg (F.A.)- 80 kg of Ea.Size</li> <li>12 Litres of Bitumen</li> </ul>													
	495	Analysis Of Compacted Bit.Paving Mixtures(SSD)	4 Nos.of Specimens													
	496	Analysis Of Compacted Bit.Paving Mixtures(WAX)	7 Nos.of Specimens													
	39/51/50	Thickness/Bulk Sp.Gr. Of Compacted Bit. Mix.(SSD/WAX)	2 Nos. of specimens/Sample													
	521/522	Loss on Stability With Voids/Without Voids	8 Nos.of Specimens													
	264/266/ 270/271/ 272/371/372	Bitumen Tests	4 Litres													
	265/273	Saybolt Furol Viscosity of Petroleum Products and Emulsified Asphalt.	1 Can (3Litres)													
ASPHALT	494/527	Bitumen Content by Ignition Method and Sieve Analysis of Extracted Aggregate	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Nominal Size(mm)</th> <th>Mass (kg)</th> </tr> </thead> <tbody> <tr><td>9.5</td><td>1</td></tr> <tr><td>12.5</td><td>1.5</td></tr> <tr><td>19</td><td>2</td></tr> <tr><td>25</td><td>3</td></tr> <tr><td>37.5</td><td>4</td></tr> </tbody> </table>	Nominal Size(mm)	Mass (kg)	9.5	1	12.5	1.5	19	2	25	3	37.5	4	ASTM C 702 : 1998
Nominal Size(mm)	Mass (kg)															
9.5	1															
12.5	1.5															
19	2															
25	3															
37.5	4															
SOIL	60 & 61	Liquid Limit & Plastic Limit	2	0.5												
			20	1												
			37.5	2												
	239	CBR	2	6												
			20	6												
			37.5	12												
	240	Linear Shrinkage	2	0.5												
			20	0.8												
			37.5	1.5												
	251	Proctor	2	25 (10)												
			20	25 (10)												
	252/332	Note: Masses in brackets apply only when the soil is not susceptible to crushing during compaction.	37.5	80 (50)												
	253 / 254	Grading	2	0.15												
20			2.5													
37.5			17													

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### C. DETAILS FOR HANDLING SAMPLES

DESCRIPTION	PART		MINIMUM INFORMATION REQUIRED ON TAG / SAMPLE / SPECIMEN
AC / DBM BULK SAMPLE / CUT OUT SAMPLE	PART-1	A	PROJECT NO., REQUEST NO., SAMPLE DESC. or MIX TYPE, TEST CODE
	PART-2	B,C&D	PROJECT NO., REQUEST NO., SAMPLE DESC. or MIX TYPE
AGGREGATE TPRMM	PART-1	A	PROJECT NO., REQUEST NO., SAMPLE DESC., TEST CODE
	PART-2	B,C&D	PROJECT NO., REQUEST NO., SAMPLE DESC.
WETMIX / G.SUB BASE / AGG. ROAD BASE	PART-1	A	PROJECT NO., REQUEST NO., SAMPLE DESC., TEST CODE
	PART-2	B,C&D	PROJECT NO., REQUEST NO., SAMPLE DESC.
SAND / CEMENTED SAND / SUBKHA	PART-1	A	PROJECT NO., REQUEST NO., SAMPLE DESC., TEST CODE
	PART-2	B,C&D	PROJECT NO., REQUEST NO., SAMPLE DESC.
CEMENT	PART-1	A	PROJECT NO., REQUEST NO., SAMPLE DESC., TEST CODE
	PART-2	B,C&D	PROJECT NO., REQUEST NO., SAMPLE DESC.
STEEL REBAR	PART-1	A	PROJECT NO., REQUEST NO., SAMPLE DESC., TEST CODE
	PART-2	B,C&D	PROJECT NO., REQUEST NO., SAMPLE DESC.
STEEL (NUT, WASHER, ANCHOR BOLT Etc.)	A		PROJECT NO., REQUEST NO., SAMPLE DESC.
ASPHALT CORE	A		PROJECT NO., REQUEST NO., SAMPLE DESC. or MIX TYPE., SENDER NO.
MARSHALL	A		PROJECT NO., REQUEST NO., SAMPLE DESC. or MIX TYPE
BITUMEN / MC70 / SS <sub>h</sub> / OIL / WATER	A		PROJECT NO., REQUEST NO., SAMPLE DESC.
* CONCRETE CUBE	A		PROJECT NO. or REQUEST NO. or SENDER NO., DATE OF CASTING
CONCRETE CORE	A		PROJECT NO., REQUEST NO., SENDER NO.
BLOCK	A		PROJECT NO. or REQUEST NO. or SENDER NO.
KERB STONE	A		PROJECT NO., REQUEST NO., SENDER NO.
AGG. FOR LAB MIX DESIGN	A		PROJECT NO., REQUEST NO., SAMPLE DESC.
IQC & PTP SAMPLES	A		PROJECT NO., REQUEST NO., SAMPLE DESCRIPTION, TEST CODE
OTHERS	Based on the decision of concerned HOU		

**Notes:**

- WHEN CONTRACTOR BRINGS THE CUBE, CONSULTANT'S SIGNATURE IS REQUIRED ON SPECIMEN IN ADDITION TO ABOVE
- A - ONE PART ONLY

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### D. METHOD OF RIFFLING AND REDUCTION OF SAMPLES IN SAMPLE MANAGEMENT

Sr. No.	SAMPLE DESCRIPTION	STANDARD TEST METHOD	REFERENCE NO.	IMPLIMENTATION DATE
1	AGGREGATE	ASTM C702: 1998 (Reapproved 2003)	S-002- 01- EMS	05/01/2002
2	SOIL	ASTM C702: 1998 (Reapproved 2003)	S-002- 01- EMS	
3	BITUMINOUS MIXTURES	ASTM C702: 1998 (Reapproved 2003)	S-002- 01- EMS	
4	STABILIZED MATERIALS	ASTM C702: 1998 (Reapproved 2003)	S-002- 01- EMS	
5	CEMENT	BSEN 196 : P7: 1992	S-117- 05- EMS	11/07/2005
6	THERMO PLASTIC ROAD MARKING MATERIAL	BS 3262 PART1: 1989 APPENDIX "B"-AMD 8783 NOV.1995	S-051- 03- EMS	07/05/2003
7	GLASS BEADS	BS 6088: 1981 APPENDIX AMD 5600,SEP 30,1987	S-009- 02- EMS	05/01/2002

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