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|---|---|
| **Laboratory** | **Material Testing Laboratory - The Gujarat Institute of Civil Engineers & Architects, Nirman Bhavan, Ellsibridge, Ahmedabad, Gujarat** |
| **Accreditation Standard** | **ISO/IEC 17025: 2005** |
| **Certificate Number** | **TC-7949** ***(in lieu of T-4162)*** **Page 1 of 2** |
| **Validity** | **29.09.2018 to 28.09.2020** **Last Amended on --** |

| Sl. | Product / Material of Test | Specific Test Performed | | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|---|---|---|---|---|---|
| | | **MECHANICAL TESTING** | | | |
| **I.** | **SOIL & ROCK** | | | | |
| **1.** | **Soil & Rock** | Sieve Analysis (0.075 to 20.0 mm) | | IS 2720:1985, (Part - 4) RA 2015 | 0.01% to 100.00 % (0.075 to 20.0 mm) |
| | | Liquid limit & Plastic Limit | | IS 2720:1985, (Part - 5) RA 2015 | 1 % to 300 %<br>1 % to 50 % |
| | | Light Compaction | Maximum Dry Density | IS 2720:1985, (Part – 7) RA 2011 | 1 g/cc to 2.50 g/cc |
| | | | Optimum Moisture Content | | 2 % to 30.0 % |
| | | Heavy Compaction | Maximum Dry Density | IS 2720:1985, (Part – 8) RA 2015 | 1 g/cc to 2.50 g/cc |
| | | | Optimum Moisture Content | | 2 % to 30.0 % |
| | | Specific gravity | | IS 2720:1980, (Part-3) RA 2011 | 1 to 3 |
| **II.** | **BUILDING MATERIALS** | | | | |
| **1.** | **Coarse Aggregate** | Sieve analysis | | IS 2386:1963, (Part-1) RA 2016 | 0.01% to 100.00 % (4.75 mm to 80.0 mm) |
| | | Specific gravity | | IS 2386:1963, (Part-3), RA 2016 | 1.0 to 4.0 |
| | | Water absorption | | IS 2386:1963, (Part-3), RA 2016 | 0.1 % to 10 % |
| | | Flakiness Index | | IS 2386:1963, (Part-1), RA 2016 | 1.0 % to 75 % |
| | | Elongation Index | | IS 2386:1963, (Part-1), RA 2016 | 1.0 % to 75 % |

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**Program Manager**

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| | | Impact value | IS 2386 :1963, (Part-4) RA 2016 | 1% to 50 % |
| **2.** | **Cement** | Standard Consistency | IS 4031:1988, (Part - 4) RA 2013 | 20% to 40 % |
| | | Initial setting time | IS 4031:1988, (Part - 5) RA 2013 | 10 minute to 300 minute |
| | | Final setting time | | 10 minute to 800 minute |
| | | Compressive strength | IS 4031:1988, ( Part - 6) RA 2013 | 10 to 85 N/mm$^2$ |
| | | Fineness by dry sieving | IS 4031:1996, (Part – 1), RA 2016 | 0.1% to 25% |
| **3.** | **Concrete cube** | Cube Compressive Strength | IS 516:1959 RA 2013 | 5 N/mm$^2$ to 85 N/mm$^2$ |
| **4.** | **Paver blocks** | Compressive Strength | IS 15658:2006 RA 2016 | 5 N/mm$^2$ to 85 N/mm$^2$ |
| **5.** | **Bricks** | Dimensions and Tolerances | IS 1077:1992 RA 2011 | 500 mm to 5000 mm (20 Bricks) |
| | | Water absorption | IS 3495:1992, (Part-2) RA 2011 | 1% to 50 % |
| | | Compressive Strength | IS 3495:1992, (Part-1) RA 2011 | 1 N/ mm$^2$to 15 N/ mm$^2$ |
| | | Efflorescence | IS 3495:1992, (Part-3) RA 2011 | Visual Assessment |
| **6.** | **Fine Aggregate** | Sieve analysis | IS 2386:1963, (Part-1) RA 2016 | 0.01% to 100.00 % (0.15 mm to 10 mm) |
| | | Specific gravity | IS 2386:1963, (Part-3), RA 2016 | 1.0 to 4.0 |
| | | Water absorption | IS 2386:1963, (Part-3), RA 2016 | 0.1 % to 10 % |

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