| | |
|---|---|
| **Laboratory** | **Sri Sai Consultancy & Laboratory, H.No. 1-30-99 Padmavathi Nagar Colony, Kanajiguda, Trimulgherry, Secunderabad, Telangana** |
| **Accreditation Standard** | **ISO/IEC 17025: 2005** |
| **Certificate Number** | **TC-7629** **Page 1 of 2** |
| **Validity** | **31.07.2018 to 30.07.2020** **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.** | **BUILDING MATERIALS** | | | |
| **1.** | **Fine Aggregate** | Sieve Analysis | IS 2386 (Part 1) | 0.1 % to 100 % (75 µm to 10 mm) |
| | | Material Finer than 75µm | IS 2386 (Part 1) | 0.1 % to 25 % |
| | | Specific Gravity | IS 2386 (Part 3) | 1.5 to 3.5 |
| | | Water Absorption | IS 2386 (Part 3) | 0.1 % to 10 % |
| | | Bulk Density | IS 2386 (Part 3) | 1 kg/L to 2.5 kg/L |
| **2.** | **Coarse Aggregate** | Sieve Analysis | IS 2386 (Part 1) | 0.1 % to 100 % (4.75 mm to 100 mm) |
| | | Specific Gravity | IS 2386 (Part 3) | 2.0 to 3.5 |
| | | Water Absorption | IS 2386 (Part 3) | 0.1 % to 10 % |
| | | Bulk Density | IS 2386 (Part 3) | 1 kg/L to 2.5 kg/L |
| | | Impact Value | IS 2386 (Part 4) | 5 % to 50 % |
| | | Crushing Value | IS 2386 (Part 4) | 5 % to 50 % |
| | | Abrasion Value by Los Angeles | IS 2386 (Part 4) | 5 % to 60 % |
| **3.** | **Hardened Concrete** | Compressive Strength (Cube & Core) | IS 516 | 5 $N/mm^2$ to 80 $N/mm^2$ |
| **4.** | **OPC/PPC Cement** | Standard Consistency | IS 4031 (Part 4) | 20 % to 50 % |
| | | Initial Setting Time | IS 4031 (Part 5) | 30 minute to 360 minute |
| | | Final Setting Time | IS 4031 (Part 5) | 120 minute to 600 minute |
| | | Fineness (Blaine Air Permeability) | IS 4031 (Part 2) | 200 $m^2/kg$ to 500 $m^2/kg$ |
| | | Compressive Strength | IS 4031 (Part 6) | 10 $N/mm^2$ to 80 $N/mm^2$ |
| | | Soundness (by Le-Chatelier Method) | IS 4031 (Part 3) | 0.1 mm to 10mm |
| **5.** | **Burnt Clay Bricks** | Dimension | IS1077 | L: 3500 mm to 5000 mm<br>W: 1800 mm to 3000 mm<br>H: 500 mm to 1800 mm |
| | | Water Absorption | IS 3495 (Part 2) | 1 % to 50 % |
| | | Compressive Strength | IS 3495 (Part-1) | 1 $N/mm^2$ to 50 $N/mm^2$ |

**Naveen Jangra**
**Convener**

**Anuja Anand**
**Program Manager**

| | |
|---|---|
| **Laboratory** | **Sri Sai Consultancy & Laboratory, H.No. 1-30-99 Padmavathi Nagar Colony, Kanajiguda, Trimulgherry, Secunderabad, Telangana** |
| **Accreditation Standard** | **ISO/IEC 17025: 2005** |
| **Certificate Number** | **TC-7629** **Page 2 of 2** |
| **Validity** | **31.07.2018 to 30.07.2020** **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 |
|---|---|---|---|---|
| **6.** | **Bitumen** | Penetration | IS 1203 | 10 to 100 (Unit:1/10 mm) |
| | | Softening Point | IS 1205 | 30 °C to 70 °C |
| | | Ductility | IS 1208 | 10 cm to 100 cm |
| **7.** | **Paver Block** | Compressive Strength | IS 15658 (Annexure D) | 1 $N/mm^2$ to 75 $N/mm^2$ |
| | | Water Absorption | IS 15658 (Annexure C) | 0.1 % to 25 % |
| **8.** | **Concrete Block (Solid & Hollow)** | Block Density | IS 2185 (Part 1 / Annex. C) | 1000 $kg/m^3$ to 3000 $kg/m^3$ |
| | | Compressive Strength | IS 2185 (Part 1 / Annex. D) | 1 $N/mm^2$ to 25 $N/mm^2$ |
| | | Water Absorption | IS 2185 (Part 1 / Annex. E) | 1 % to 20 % |
| **II.** | **SOIL AND ROCK** | | | |
| **1.** | **Soil** | Water Content | IS 2720 (Part 2) | 0.1 % to 40 % |
| | | Specific Gravity | IS 2720 (Part 3 / Section 1) | 1 to 4 |
| | | Particle Size Distribution (Wet Analysis) | IS 2720 (Part 4) | 0.1 % to 100 % (75 µm to 4.75 mm) |
| | | Liquid Limit | IS 2720 (Part 5) | 10 % to 80 % |
| | | Plastic Limit | IS 2720 (Part 5) | 5 % to 80 % |
| | | Light Compaction | IS 2720 (Part 7) | OMC: 1 % to 40 %<br>MDD: 1.1 g/cc to 3.0 g/cc |
| | | Heavy Compaction | IS 2720 (Part 8) | OMC: 1 % to 40 %<br>MDD: 1.1 g/cc to 3.0 g/cc |
| | | Triaxial Compression | IS 2720 (Part 11) | C: (0.05 to 5.0) $kg/cm^2$<br>Ø: 1° to 50° |
| | | Direct Shear | IS 2720 (Part 13) | C: (0.01 to 5.0) $kg/cm^2$<br>Ø: 1° to 60 ° |
| | | California Bearing Ratio | IS 2720 (Part 16) | 1 % to 80 % |
| | | Free Swell Index | IS 2720 (Part 40) | 5 % to 150 % |
| **2.** | **Rock** | Brazilian Tensile Strength | IS 10082 | 1 $MN/m^2$ to 500 $MN/m^2$ |
| | | Point Load Strength | IS 8764 | 1 $MN/m^2$ to 35 $MN/m^2$ |
| | | Unconfined Compressive Strength | IS 9143 | 1 $N/m^2$ to 300 $N/mm^2$ |

**Naveen Jangra**
**Convener**

**Anuja Anand**
**Program Manager**