

SERVICES:

Following material testing Services are available at Telford Test House.

| S.No. | Material | Test | Specification / Code |
|-------|--------------------|---|-------------------------------|
| 1 | Soil | Atterberg's limits | IS:2720 (Pt.5):1995 |
| | | Specific Gravity | IS:2720 (Pt 3):1997 |
| | | Grain Size analysis | IS:2720 (Pt 4):1995 |
| | | Proctor Compaction Test (MDD / OMC) | IS:2720 (Pt 8):1995 |
| | | Deleterious Substances | IS:2720 (Pt.27):1995 |
| | | Direct shear | IS:2720 (Pt 13):1997 |
| | | CBR value | IS:2720 (Pt 16):1997 |
| | | Moisture Content | IS:2720 (Pt 2):1997 |
| | | Stabilized Soil Mixture | IS:4332 (Pt 1-10) : |
| | | Total Soluble Solids | IS:2720 (Pt 21):1995 |
| | | Calcium Carbonate | IS:2720 (Pt 23):1995 |
| | | Total Soluble Sulphate | IS:2720 (Pt 27):1995 |
| | | In situ Density by sand replacement method | IS:2720 (Pt 28):1995 |
| | | pH Value | IS:2720 (Pt 26):1997 |
| | | Free Swelling Index | IS:2720 (Pt 40):1997 |
| | | Soil Classification | IS:1498:1997 |
| | | Organic matter | IS:2720 (Pt-22)-1995 |
| 2 | Aggregate | | |
| | a)Coarse Aggregate | | |
| | | Sieve Analysis | IS:2386 (Pt 1):1997 |
| | | Specific Gravity | IS:2386 (Pt.3):1997 |
| | | Bulk Density | IS : 2386 (Pt.3)-1997 |
| | | Moisture Content | IS:2386 (Pt.3):1997 |
| | | Water Absorption | IS:2386 (Pt.3):1997 |
| | | Impact Value | IS:2386 (Pt.4):1997 |
| | | Crushing Value | IS:2386 (Pt.4):1997 |
| | | Abrasion Value (Los angeles) | IS:2386 (Pt.4):1997 |
| | | Flakiness Index | IS:2386 (Pt.1):1997 |
| | | Elongation Index | IS:2386 (Pt.1):1997 |
| | | a) Soundness by a) Na ₂ SO ₄ . 10H ₂ O | IS:2386(Pt.5):1997 |
| | | b) Soundness by MgSO ₄ 7H ₂ O | |
| | | Stripping Value | IS:6241:1998 |
| | | Chloride Content | ASTM-C 1218 / C 1218M:1997 |
| | | Sulphate content | ASTM-C 1152 / C 1152M:1997 |

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| | | Deleterious Material | IS:2386(Pt.2):1997 |
| | | Alkali Aggregate Reactivity by Chemical Method | IS:2386 (Pt.7):1997 , ASTM-C 289:1994 |
| | | 10% Fine Value | IS:2386(Pt-4)1997 |
| | b)Fine Aggregate | | |
| | | Material Finer than 75microns | IS:2386 (Pt 1) :1997 |
| | | Sieve analysis | IS:2386 (Pt 1) :1997 IS: 383 – 1970 |
| | | Specific Gravity | IS:2386 (Pt 3) :1997 |
| | | Moisture Content | IS:2386 (Pt 3) :1997 |
| | | Water Absorption | IS:2386 (Pt 3) :1997 |
| | | Sulphates | IS:4032:2000 |
| | | Bulk Density | IS:2386 (Pt 3) :1997 |
| | | a) Soundness by Na ₂ SO ₄ . 10H ₂ O | IS:2386 (Pt 5) :1997 |
| | | b) Soundness by MgSO ₄ 7H ₂ O | IS:2386 (Pt 5) :1997 |
| | | Mica content | SP-23 |
| | | Alkali Aggregate Reactivity | IS:2386 (Pt 7) :1997, ASTM-C289:1994 |
| | | Bulking of sand | IS:2386 (Pt 3) :1997 |
| | | Clay, Fine Silt & Fine Dust | IS:2386 (Pt 2) :1997 |
| | | Deleterious Material / Organic Impurities | IS:2386 (Pt 2) :1997 |
| | | Silt content by Volume | IS:2386 (Pt 2) :1997 |
| | | Chloride Content | BS:182 (Pt-117) |
| | | Sulphate Content | BS: 1881 (Pt-124) |
| 3 | Cement | | |
| | | Cement OPC 33 Gr./ 43Gd/ 53 Gr / White Cement/ Slag Cement | As per IS:269- 1998, IS:8112-2000, IS:8042 IS:12269-1999, IS:455, |
| | | Cement Chemical Analysis | IS:4032:2000, Vogel |
| | | Cement Physical Testing | IS:4031 (Pt 1):1996 IS:4031 (Pt 2):1999 IS:4031 (Pt 3-15):2000 |
| | | Compressive Strength (Cement 3 DAYS) Cube casting & compression test | IS:4031 (Pt 6):2000 |
| | | Compressive Strength (Cement 7 DAYS) Cube casting & compression test | IS:4031 (Pt 6):2000 |
| | | Compressive Strength (Cement 28 DAYS) Cube casting & compression test | IS:4031 (Pt 6):2000 |
| 4 | Concrete | | |
| | | Compressive Strength | IS:516:1999 |

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| | | Flexural Strength | IS:516-1999 |
| | | Concrete Mix Design of M-15 to M-60. | IS:10262:2009 |
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| 5 | Bitumen | | |
| | a)Bitumen | Bitumencontent | As per IS: 73 -2006 |
| | | Bitumen Content in Bitumen Mix | Hand Book Bitumen Mix by (IOC/CRR) |
| | | Penetration Test | IS:1220 – 1988 |
| | | Bitumen Mix Design (DBM, BC) | ASTM D-1159 |
| | | J.M.F (Job mix formula) | As Per MORTH Specification |
| | | Marshall Stability | As Per Morth Specification |
| | b)Emulsion | Bitumen Emulsion (Cationic) | IS:8887 – 2004 |
| 6 | Environmental Engineering | | |
| | | Stack Emission sampling First stack | IS:11255 |
| | | Particulate Matter | IS:11255 |
| | | Sulphur Dioxide | IS:11255 |
| | | Nitrogen Dioxide | IS:11255-Pt.2 |
| | | Carbon Monoxide | IS:5182-Pt.6 |
| | | Ambient / Process Air sampling as per NAAQS | IS:5182 |
| | | Noise Monitoring | IS:5182-Pt.14 |
| 7 | Water | | |
| | | Chemical test | MORTH & IS: 456/IS: 3025 |
| | | Physical test | MORTH & IS: 456/IS: 3025 |
| 8 | Admixture | | |
| | | Admixture of Concrete (Physical + Chemical) | IS:9103:1999 |