

Migration of TMH1 to SANS 3001

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Road Pavement Forum Nov 2015

Overview

- Published:
 - SANS 3001: 62 Test methods
 - SANS 4001: 5 Bitumen specifications
- With SABS:
 - 9 Test methods
(including PD1 for the MMLS₃)
- Being written:
 - 3 Standards

Overview

- What 62 test methods:
 - 14 – SANS 3001 AG for Aggregates
 - 22 – SANS 3001 GR for Soils & Gravels
 - 4 – SANS 3001 PR for Procedures
 - 8 – SANS 3001 AS for Asphalt
 - 1 - SANS 3001 BSM for Bitumen
Stabilised Materials
 - 8 – SANS 3001 BT for Seal Works
 - 5 – SANS 3001 NG for Nuclear Gauge
 - 5 – SANS 4001 BT specs for bitumen

Aggregates (AG)

- Grading (1)
- ALD (direct) (2)
- ALD (indirect) (3)
- Flakiness Index (4)
- Sand Equivalent (5)
- ACV & 10% FACT (10)
- Mudstone Venter Test (13)
- Ethylene Glycol Durability Index (14)

Aggregates (AG)

- Ethylene Glycol 10% FACT (15)
- Durability Mill Index (16)
- Bulk & Apparent Density & Water Absorption + 5mm (20)
- Bulk & Apparent Density & Water Absorption - 5mm (21)
- Apparent Density of G1 (22)
- Particle & Relative Density (23)

Soils & Gravels (GR)

- Wet Grading (1)
- Dry Grading (2)
- Hydrometer (3)
- Prep of fines (5)
- 1 point LL, PL, PI & LS (10)
- 2 point LL (11)
- Flow Curve LL (12)
- Moisture Content (20)

Soils & Gravels (GR)

- MDD & OMC (30)
- MDD & OMC of lab stab mix (31)
- Sand Replacement (35)
- CBR (40)
- CBR on lime treated (41)
- Prep, compact & curing of lab stab mix (50)
- Sample, prep, compact & curing of field stab mix (incl. MDD & OMC) (51)

Soils & Gravels (GR)

- Sample & prep of cored mature field stab mix (52)
- UCS (53)
- ITS (54)
- Wet-Dry durability (Hand brushing) (55)
- Wet-Dry durability (Mech. brushing) (56)
- Initial Stabiliser Consumption (57)
- Cement / Lime content (58)

Procedures (PR)

- Uncertainty of measurement, repeatability, reproducibility & bias (1)
- Repeat, check or duplicate tests (2)
- Computation of soil-mortar %, coarse sand ratio, grading modulus & fineness modulus (5)
- Check, handle, maintain & verification of test sieves (10)

Asphalt (AS)

- Making of asphalt briquettes (1)
- Marshall stability, flow & quotient (2)
- Bulk density & void content (10)
- Max void-less density & binder absorption (11)
- Binder content & grading (20)
- Bitumen content by ignition (21)
- Binder content of slurry (22)
- Moisture in asphalt (23)

Bitumen Stabilised Materials (BSM)

- Determination of Foamed Bitumen Characteristics (1)

Seal Works (BT)

- Ball Penetration (10)
- Texture depth (11)
- In-Situ Permeability (Marvil Test) (12)
- Certification of distributor (20)
- Validation of dipstick (21)
- Power & road speed (22)
- Pump system performance (23)
- Transverse distribution (Bucket test) (24)

Nuclear Density Gauge (NG)

- Admin, handling & maintenance of a nuclear density gauge (1)
- Validation of standard calibration blocks (2)
- Calibration of a nuclear density gauge (3)
- Verification of a nuclear density gauge (4)
- In situ density using a nuclear density gauge (5)

Bitumen Spec (4001-BT)

- Penetration Grade (1)
- Cutback (2)
- Anionic road emulsion (3)
- Cationic road emulsion(4)
- Inverted road emulsion (5)

Concrete

New Work by TCI and SC81-01:

Concrete tests and specific concrete aggregate tests

- SANS 3001 CO1 – Fresh Concrete
- SANS 3001 CO2 – Hardened Concrete
- SANS 3001 CO3 – Concrete Structures

Concrete

- SANS 3001 CO1 – Fresh Concrete
 - SANS-CO1 - 1 - Mixing Fresh Concrete in the Laboratory
 - SANS-CO1 -13 - J-ring Test
- SANS 3001 CO2 – Hardened Concrete
- SANS 3001 CO3 – Concrete Structures

Concrete

- SANS 3001 CO1 – Fresh Concrete
- SANS 3001 CO2 – Hardened Concrete
 - SANS 3001 CO2 - 1 – Dimensions, Tolerances and Uses of Cast Test Specimens
 - SANS 3001 CO2 - 10 – Mortar Test – Initial Drying Shrinkage and Wetting Expansion of Mortar
- SANS 3001 CO3 – Concrete Structures

Concrete

- SANS 3001 CO1 – Fresh Concrete
- SANS 3001 CO2 – Hardened Concrete
- SANS 3001 CO3 – Concrete Structures
 - SANS 3001- CO3 - 1 – DI Tests – Part 1: Preparation of Test Specimens
 - SANS 3001-CO3 - 4 – The Drilling, Preparation and Testing of Compressive Strength of Cores taken from Hardened Concrete

Concrete (adopt EN12350)

- SANS 3001 - CO1 - 2 - Sampling of Freshly Mixed Concrete
- SANS 3001 - CO1 - 5 - Consistence of Freshly Mixed Concrete – Compaction Factor & Compaction Index
- SANS 3001 - CO1 - 9 - Slump Test
- SANS 3001 - CO1 - 10 - V-funnel Test
- SANS 3001 - CO1 - 11 - L Box Test
- SANS 3001 - CO1 - 12 - Sieve Segregation Test
- SANS 3001 - CO1 - 13 - J-Ring Test

Concrete (adopt EN12390)

- SANS 3001 – CO2 - 4 – Specification for Testing Machines for the Measurement of the Compressive Strength of Concrete

Concrete

- SANS 3001 - CO3 - 1 – 3 Circulating for voting
- SANS 3001 - CO3 - 4 On-Hold
- SANS 3001 – CO3 - 5 – with SABS

Concrete Aggregate

- Reviewing methods
 - Adopt SANS3001-AG
 - Adopt SANS3001-AG with indication of difference
 - Add part 1 & part 2 to SANS3001-AG

Amendments Published

- Original standards are indicated as:
1.00 – 2009 =
edition: 1. amendment: 0
– published in 2009
- Amended standards are indicated as:
1.02 – 2015 =
edition: 1. amendment: 2
– published in 2015
- Errors or amendments be referred to
DF Wright (cc Sean Strydom, COTO MTC)

For Discussion

- RPF resolution that SA Industry (all role players) adopt and implement the SANS standards (MTC confirmed October 2014)

Implementation vs Accreditation

Jan 2013 vs Dec 2017





Thank You