



PROPOSED AMENDMENTS TO SOUTH AFRICAN NATIONAL STANDARDS FOR BITUMEN EMULSIONS

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SOUTH AFRICAN NATIONAL STANDARDS FOR BITUMEN ROAD EMULSIONS

- **SABS ADVISED THAT STANDARDS NEED REAFFIRMATION OR REVISION**
- **RPF BITSPEC TASK GROUP**
 - **SUB TASK GROUP**
 - S SOLOMONS (SABITA)
 - H MARAIS (MUCH ASPHALT)
 - K LOUW (COLAS)
 - J MULLER (SASOL)
 - J GROBLER (vela VKE)

SOUTH AFRICAN NATIONAL STANDARDS FOR BITUMEN ROAD EMULSIONS

- **SANS 309:2004 Anionic bitumen road emulsions**
- **SANS 548:2003 Cationic bitumen road emulsions**
- **SANS 1260:2004 Invert bitumen emulsion**

SOUTH AFRICAN NATIONAL STANDARDS FOR BITUMEN ROAD EMULSIONS

SANS 309:2004
Anionic bitumen road emulsions

SANS 309:2004

ANIONIC BITUMEN EMULSION

2.7 Types of emulsion

Pre-mix type (MS)

Spray type (RS)

Stable-mix type (SS)

SANS 309:2004

ANIONIC BITUMEN EMULSION

- **6 Methods of test**

- **6.4 Residue on sieving**

The emulsion should first pass through a sieve size of nominal aperture size 710 μ m and then through a nominal aperture size 150 μ m.

Thereafter determine the mass of the dry residue on both sieves

SANS 309:2004

ANIONIC BITUMEN EMULSION

- **3.5 Other requirements**
 - **Table 2 – Requirements for anionic bitumen road emulsions**
 - Residue on sieving (**150 μ m**), g/100mL, max
 - All types 0,25
 - Residue on sieving (**710 μ m**), g/100mL, max
 - All types 0,1

SANS 309:2004

ANIONIC BITUMEN EMULSION

6.5 Sedimentation test

6.5.2 Soap solution

An aqueous soap solution containing 1 g of potassium oleate per 100 mL of solution **or the actual soap used in the production of the emulsion**

SANS 309:2004

ANIONIC BITUMEN EMULSION

Appendix B - Notes to purchasers

B2 The general classification of road emulsions given in table 1 is based on tests using standard dolerite stone chippings **sourced at the Rooikraal quarry in Gauteng. Should other sources be used, the break rate of the emulsion should be assessed (see 6.2) and Portland cement CEM 1 42,5N (see 6.3).....**

SANS 309:2004

ANIONIC BITUMEN EMULSION

Appendix B - Notes to purchasers

B7 Compliance to this specification shall mean that the product bears the SABS mark through certification

SOUTH AFRICAN NATIONAL STANDARDS FOR BITUMEN ROAD EMULSIONS

SANS 548:2003

Cationic bitumen road emulsions

SANS 548:2003

CATIONIC BITUMEN EMULSION

Types of emulsions

Pre-mix type (KMS)

Spray type (KRS)

Stable-mix type (KSS)

SANS 548:2003

CATIONIC BITUMEN EMULSION

- **6 Methods of test**

- **6.2 Residue on sieving**

.....shall be used as the reagent. **Alternatively the cationic soap used in the production of emulsion can be used for this purpose**

The emulsion should first pass through a sieve size of nominal aperture size 710 μ m and then through a nominal aperture size 150 μ m.

Thereafter determine the mass of the dry residue on both sieves

SANS 548:2003

CATIONIC BITUMEN EMULSION

- **3.6 Type and grade requirements**
 - **Table 1 – Type and grade requirements**
 - Viscosity at 50°C, Sabolt Fural seconds
 - Spray type (KRS) Grade 60 ~~2015~~ – 50
 - Residue on sieving (150µm), g/100mL, max
 - All types & grades 0,25
 - Residue on sieving (710µm), g/100mL, max
 - All types & grades 0,1

SANS 548:2003

CATIONIC BITUMEN EMULSION

6.3 Particle charge and cathode deposit test

6.3.2 Procedure

e) For cationic stable mix type (KSS) the applied current should be 50ma

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CATIONIC BITUMEN EMULSION

Appendix B - Notes to purchasers

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SOUTH AFRICAN NATIONAL STANDARDS FOR BITUMEN ROAD EMULSIONS

SANS 1260:2004
Invert bitumen emulsion

SANS 1260:2004

INVERT BITUMEN EMULSION

- **3.4 Other requirements**

- **Table 1 – other requirements**

- Water content, by volume, ~~max~~ **10-20**
 - Residue from distillation to 360°C,
% by volume(by difference), min ~~50~~ **45**

SANS 1260:2004

INVERT BITUMEN EMULSION

- **Appendix B - Notes to users**
 - B.1invert emulsions may also be used for the ~~laying~~ **suppression** of dust.....
 - B.3 should be used as soon as possible after delivery. **The shelf life of the bitumen should be advised by the supplier.**
 - B.4 Invert bitumen emulsion ~~cannot~~ **shall not** be diluted with water.

SOUTH AFRICAN NATIONAL STANDARDS FOR BITUMEN ROAD EMULSIONS

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Thank You