

47th Road Pavements Forum

29th November 2024



Manuals Update



Strategy issues prioritised

- Technology Development
- Stakeholder Engagement
- Health & Safety
- Training & Development
- Bituminous Industry Representation and Information Dissemination

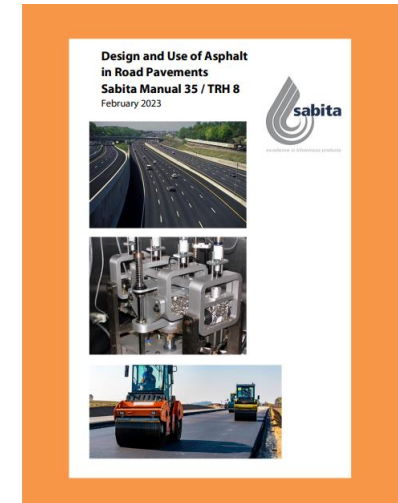
Technology Development 2023

► Manual 35/TRH8 (4th ED. FEB 2023) - Design and Use of Asphalt in Road Pavements

- ▶ Design target values of VMA
- ▶ The relationship between layer or lift thickness and NMPS
- ▶ Recommended minimum production volumes / plant run-time during plant mix trials are now included.

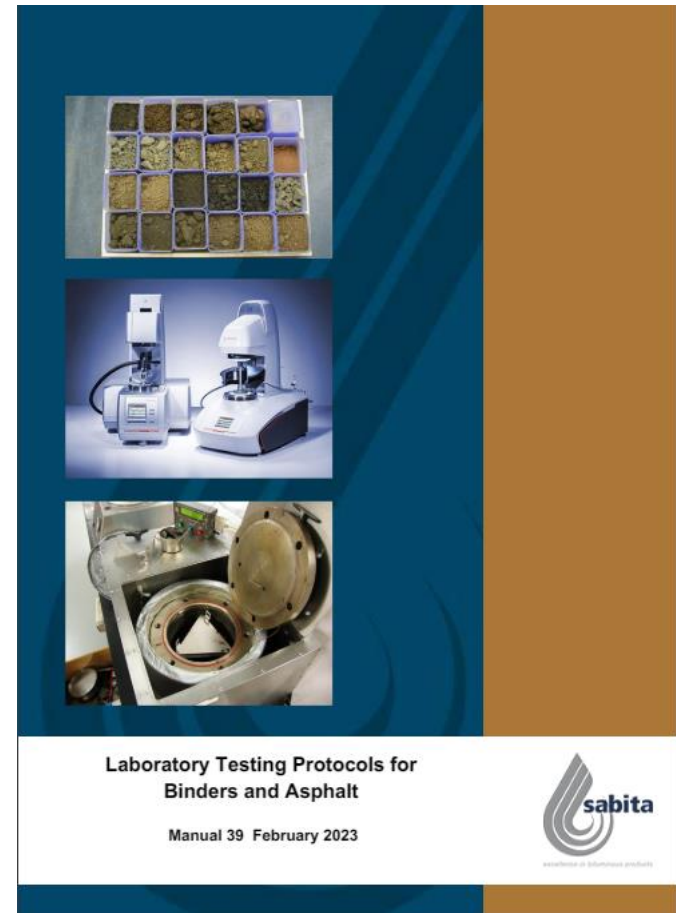
➤ Post Feb 2023

- ▶ Following on from CAPSA 23, the WG is setting out a new road map to transition from an approach that primarily targets volumetric parameters to one that would target performance characteristics.
- ▶ Targeting performance parameters; designing for functionality; QA Framework – from lab mix to site mix; air permeability; workability and the layout of the manual.



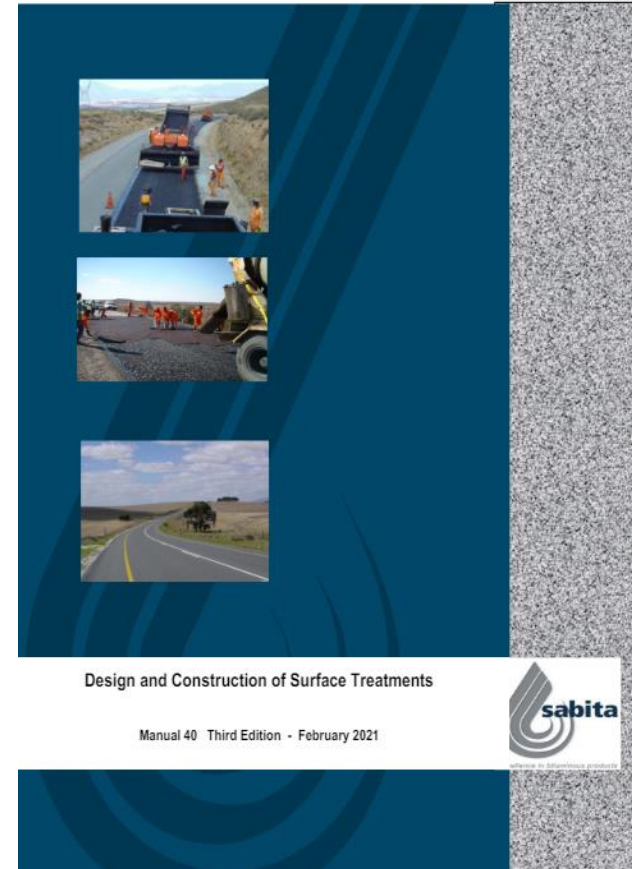
Technology Development 2023

- ▶ **Manual 39 - FEB 2023 - Laboratory Testing Protocols for Binders and Asphalt**
 - ▶ Revision to ASP 8 (Determining the Bulk Density of Compacted Asphalt Mixtures)
 - ▶ Inclusion of the newly compiled ASP 9 (Determining the Maximum Voidless Density of Asphalt Mixtures).



Technology Development 2023

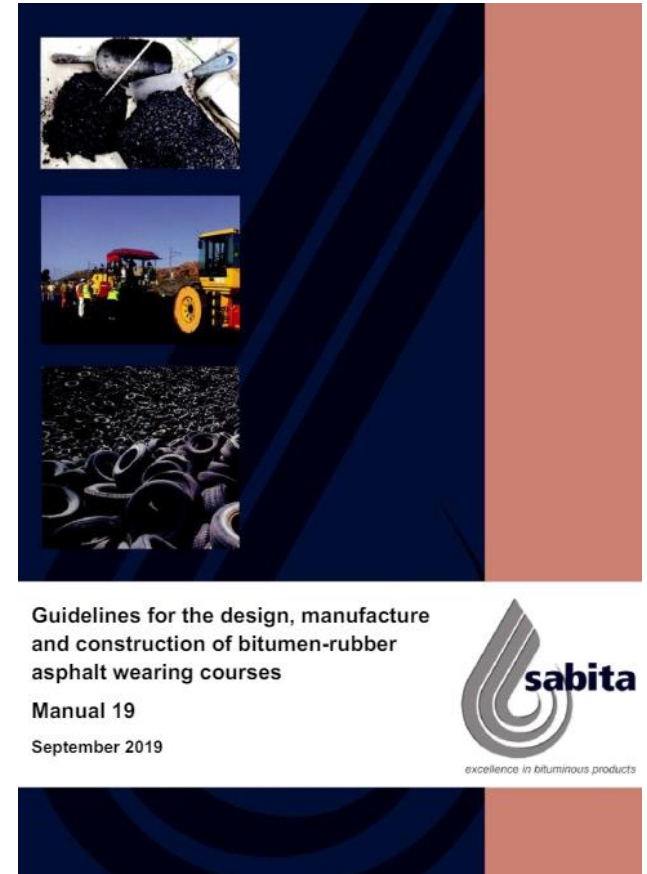
- ▶ **Manual 40 Addendum Jan 2023 – Design and Construction of Surface Treatments**
 - ▶ Addendum in respect of this manual was sent out to all authorized representatives to address and clarify some of the issues in Manual 40.
 - ▶ Working document requiring review, additional opinions, and information from practitioners before we incorporate it into Manual 40.



Technology Development 2023

▶ Manual 19 – Guidelines for the Design, manufacture and Construction of Bitumen-Rubber asphalt wearing Courses - SEP 2019

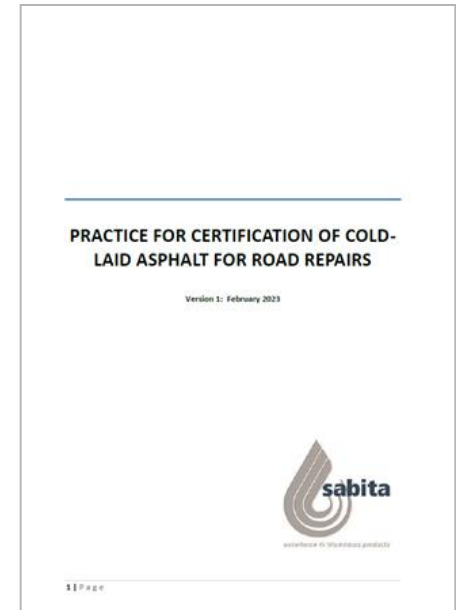
- ▶ The SABITA TDFP approved the update of the SABITA Manual 19 .
- ▶ Further findings to be incorporated into the manual based on the outcomes of several research and trail section outputs.



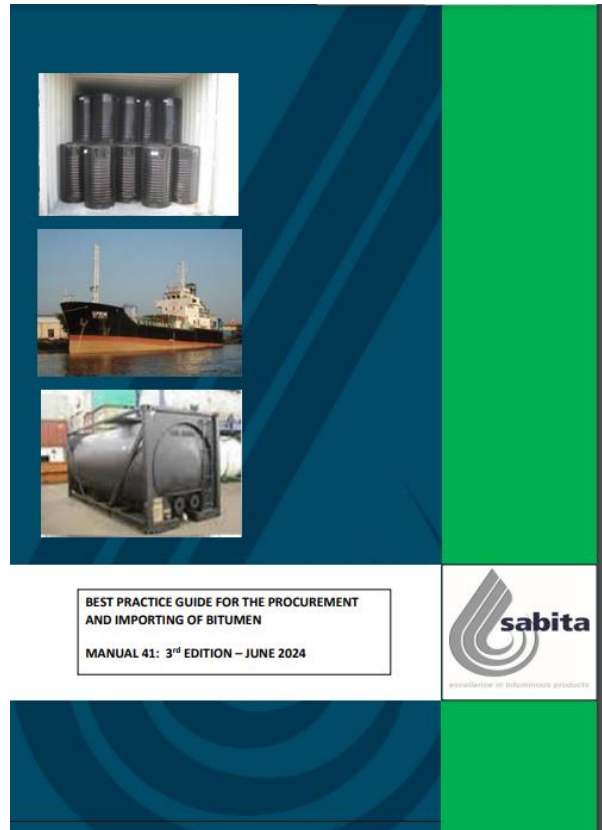
Technology Development - 2023

► Certification of cold laid asphalt

- Code of practice for this process finalized.
- Certification process which Sabita has put in place with SATAS was presented to RTMC officials.
- There was general support and the RTMC welcomed the efforts by SABITA to bring more risk management measures in the space of cold (mixed/laid) asphalt.
- Introduced the process at the Road Maintenance Forum on the 22nd of November 2023.



Technology Development - 2024



- 2022 concerns regarding HSE activities needing to be considered by bitumen importers.
- Related to offloading of bitumen during import operations
- Provide more comprehensive guidance on critical HSE activities associated with the importing of bitumen.

Technology Development - 2024



A Health and Safety Guide for Material Testing
Laboratories in the Road Construction Industry
Manual 38 November 2024



Laboratory operators highlighted concerns with regards to health and safety issues in connection with distillation of Toluene.

Revision of this guideline detailed discussion and recommendations for establishing and managing the hazards and effects associated with the distillation of Toluene.

Technology Development - 2024

Design and Use of Asphalt in Road Pavements

SABITA MANUAL 35



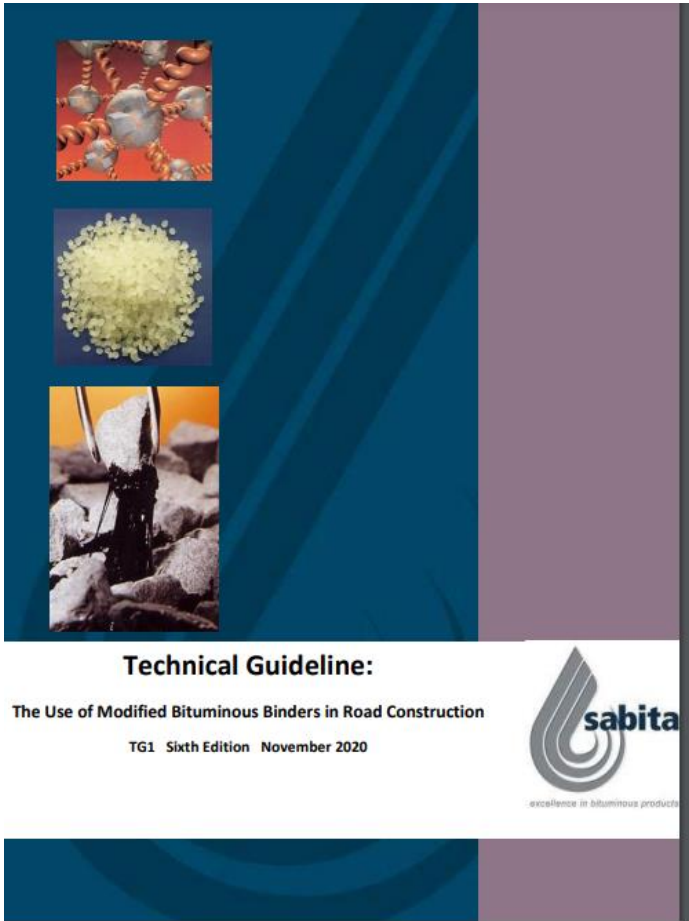
- Design of dense asphalt, with fine or coarse continuous gradings and produced with conventional or modified bitumen, where such modification agents result in a homogenous binder
- Design of special mixes should be carried out in accordance with the relevant Sabita manuals or, where the design of a mix type is not covered by the scope of a Sabita manual, by reference to best practice documents.
- Chapter on quality management procedures has been removed for incorporation into Sabita Manual 5 Guidelines for the Manufacture and Construction of Asphalt

Technology Development - 2024

WG hard at work under the Chair of Herman Marais and most of the sections of the manual are being updated.

New sections incorporated including:

- In Mix Modification
- Recycled Plastic Modification
- Understanding influence of bitumen Chemistry.



Technology Development – 2025??

Guidelines for the manufacture and construction of hot mix asphalt

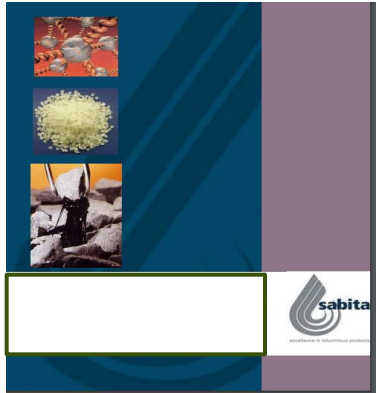


manual 5 January 2008
4th edition

WG for updating manual 5 – Chair Greg Reynolds

- Section 7 of manual 35 - section would revert to Sabita Manual 5.
- Sound construction and QA procedures to be incorporated in this document.

Technology Development – 2025??



TECHNICAL GUIDELINE:

THE INTRODUCTION OF A PERFORMANCE
GRADE SPECIFICATION FOR BITUMINOUS
BINDERS

Version 2
February 2017

**WG for development of new manual
– SMA**

**Guideline document on the
interpretation and application of
SATS 3208 to be updated to align
with the outcomes of the workshop
in October**



Manual Availability?????

← → ↻ 📄 sabita.co.za/non-members-manuals-and-dvds/

🗄️ | 🏠 Bowmans | 🏢 Microsoft Office Ho... | 📄 RA Policy Insights -... | 📄 Master of Pavement... | 🇦🇺 AfPA - Australian Fl... | 📄 Funding for roads:... | 🚗 HOT SEAT | Bitumen... | 🏗️ Construction | Infras...



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the information of the publications. The above exclusions apply irrespective of any references in any COTO document to any of Sabita's manuals.

Manual 1: Construction of bitumen rubber seals

Manual 2 (PG): Bituminous Products for road construction and maintenance, download [Download for Manual 2](#)

Manual 5: Guidelines for the Manufacture and Construction of Asphalt – [Download for Manual 5](#)

Manual 7: SuperSurf – Economic warrants for surfacing roads

Manual 8: Guidelines for the safe and responsible handling of bituminous products – [Download for Manual 8](#)

Manual 10: Bituminous surfacings for low volume roads and temporary deviations – [Download for Manual 10](#)

Manual 11: Labour enhanced construction for bituminous surfacings (this manual has been withdrawn and part of the contents thereof has been incorporated into Manual 12)

Manual 12: Labour Absorptive Methods in Road Construction using Bituminous Materials – [Download for Manual 12](#)

Manual 13: LAMBS – the design and use of large aggregate mixes for bases