

SANS 968 – CONVEYOR BELTING, SOLID WOVEN SPECIFICATION

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1. INTRODUCTION

At the time of writing the SABS 971 specification for fire retardant textile reinforced belting, the belt of choice happened to be a multi-ply carcass construction. It was therefore not surprising that the requirements for the belting were originally closely linked to the SABS 1173 specification. As the situation changed and Solid Woven PVC belting replaced the multi-ply rubber type, the specification was modified, and yet again to accommodate belting with Solid Woven PVC belting with synthetic rubber covers.

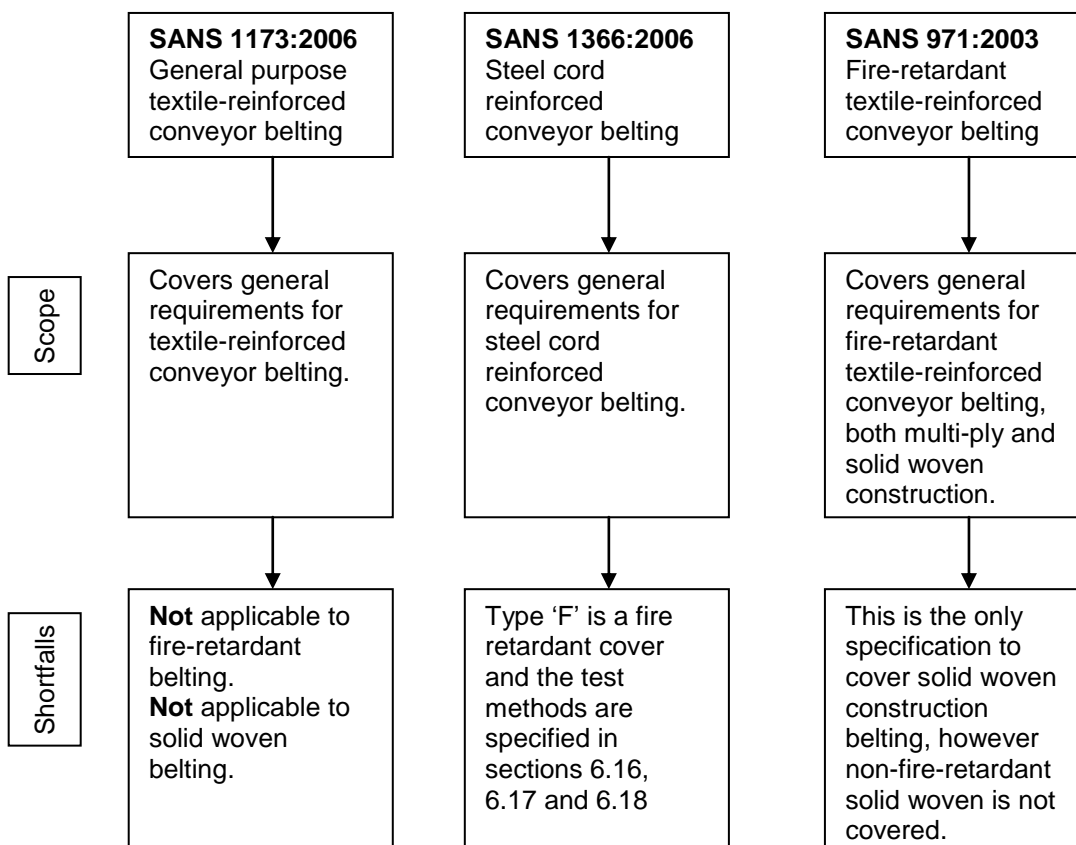
Then of course, the situation was further confused by non-fire-retardant belts having a solid woven carcass. It was decided that the correct approach would be a complete revision of SANS 971 specification and to create a new specification for all types of belting having a solid woven carcass.

2. PURPOSE

The motivation for any standard is to allow comparison of the various products on an equal basis. There are not many standards for solid woven construction conveyor belting because of the difficulty of comparing one with another.

3. CONVEYOR BELTING SPECIFICATIONS

Currently three specifications are used by the industry when ordering belting.



There are two major shortcomings with the current conveyor belting specifications.

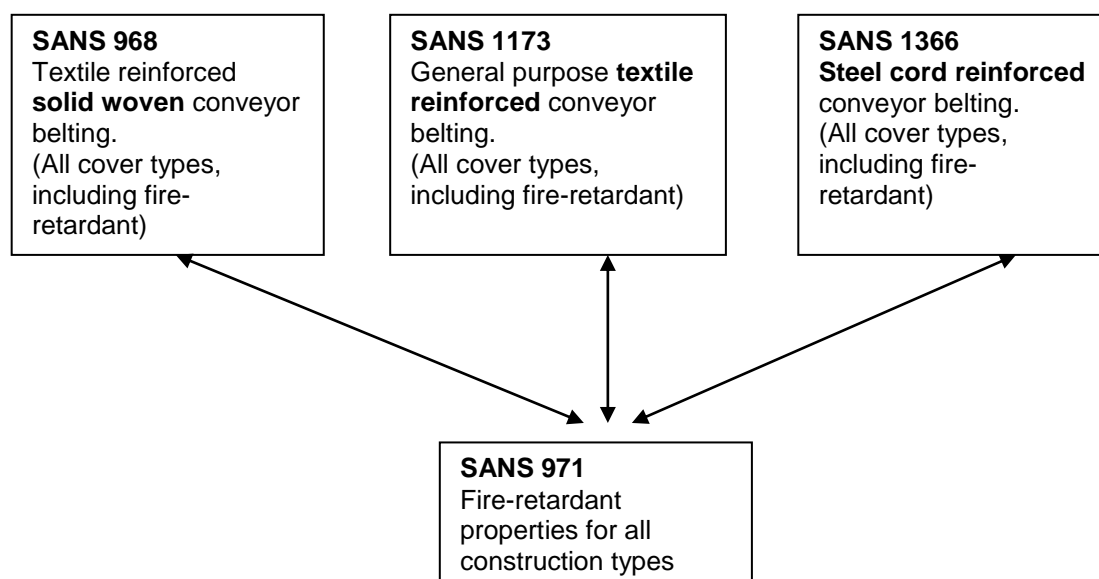
Firstly, there is no specification covering non-fire-retardant solid woven belting. (SANS 971:2003 is only applicable to fire-retardant belting.)

Secondly, the fire-retardant test methods are specified in both specifications and thus would need to be updated in both specifications should updates be required.

The belting workgroup agreed to introduce a new specification, SANS 968, to cover the manufacturing of all solid woven conveyor belting, including non-fire-retardant belting.

SANS 971 will in future be a specification detailing the test methods for fire-retardant belting. All the other specifications will cross reference to this specification. This means that both SANS 1173 and SANS 1366 will be updated in the near future.

The new specifications will be structured in the following way:



4. REQUIREMENTS SPECIFIED IN SANS 968 — SOLID WOVEN BELTING

The following requirements are detailed in SANS 968.

Class:

The minimum breaking strength, tear strength and the elongation properties of the belt is specified.

Type of cover:

The physical properties of various cover types are specified. This includes the tensile strength, elongation at break and abrasion loss. The aging properties are also specified.

Dimensions:

The length, width and cover dimensions plus tolerances are specified.

Adhesion:

The minimum cover to carcass adhesions are specified.

Troughability:

The minimum troughing requirements for various idler angles are specified.

Construction:

The belt construction is also detailed including workmanship.

5. CHANGES TO SANS 971: FIRE—RETARDANT TEST METHODS

This specification has been completely overhauled and will in future only describe the test methods to be used to test fire-retardant properties.

The following tests are detailed:

Flame Propagation:

The workgroup also included a 'Mini Gallery Flame Propagation' test in this specification, which will allow the end user to specify a higher degree of fire-resistant belting in future.

Drum Friction:

This test is aimed at simulating a stationary belt and moving pulley. No ignition of the belt is allowed.

Electrical Resistance:

This test is to ensure the belt is conductive and static electricity is not present. The compliance requirements will not be specified in this specification, but will be specified in the other three specifications namely: SANS 968, 1173 and 1366.

6. BENEFITS

The combination of the four specifications will result in clear manufacturing requirements for all conveyor types and also improve on the fire-retardant test methods.

7. CONCLUSION

The addition of the SANS 968 specification and changes to SANS 971 complete the standardisation of all the different types of belting available from SABS permit holders.

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