TRANSPORT FOR NSW (TfNSW)

QA SPECIFICATION 3204

PREFORMED JOINT FILLERS FOR CONCRETE ROAD PAVEMENTS AND STRUCTURES

REVISION REGISTER

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Transport for NSW

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VERSION FOR: DATE:

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CLAUSE PAGE

FOREWORD

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REVISIONS TO PREVIOUS VERSION

This document has been revised from Specification TfNSW 3204 Edition 3 Revision 0.

All revisions to the previous version (other than minor editorial and project specific changes) are indicated by a vertical line in the margin as shown here, except when it is a new edition and the text has been extensively rewritten.

PROJECT SPECIFIC CHANGES

Any project specific changes are indicated in the following manner:

(a) Text which is additional to the base document and which is included in the Specification is shown in bold italics e.g. ***Additional Text***.

(b) Text which has been deleted from the base document and which is not included in the Specification is shown struck out e.g. ~~Deleted Text~~.

TfNSW QA SPECIFICATION 3204

PREFORMED JOINT FILLERS FOR CONCRETE ROAD PAVEMENTS AND STRUCTURES

1 SCOPE

This specification sets out the requirements for preformed expansion joint fillers, both non-expanding and self expanding types, which show relatively little extrusion and a large amount of recovery after release from compression.

2 STRUCTURE OF THE SPECIFICATION

This Specification includes a series of annexures that detail additional requirements.

2.1 (NOT USED)

2.2 (NOT USED)

2.3 (NOT USED)

2.4 REFERENCED DOCUMENTS AND DEFINITIONS

Unless specified otherwise, the applicable issue of a referenced document, other than a TfNSW Specification, must be the issue current at the date one week before the closing date for tenders, or where no issue is current at that date, the most recent issue.

Standards, specifications and test methods are referred to in abbreviated form (e.g. AS 2350). For convenience, the full titles are given in Annexure 3204/M.

The term “the Supplier” means the supplier of the product covered by the scope of this Specification.

3 (NOT USED)

4 SUPPLIER’S QUALITY MANAGEMENT SYSTEM

The Supplier must establish and maintain a Quality Management System complying with AS/NZS ISO 9001 as a means of ensuring that the product conforms to this Specification.

Provide evidence verifying compliance with this Clause.

5 MATERIAL REQUIREMENTS

5.1 GENERAL PROPERTIES

Strips of preformed joint filler must be of such nature as not to be permanently deformed or broken by twisting or bending to the degree that may occur in normal handling.

Non-expanding type fillers must show no deterioration in properties if exposed to weather conditions for up to one month prior to installation.

5.2 PROPERTIES

The properties of the joint filler must comply with the following:

Property	Requirements	TfNSW Test Method
Compression. Pressure to produce 50% of original thickness.	80 kPa (min) if used at a depth of concrete to 1 m. 300 kPa (min) if used at a depth of concrete greater than 1 m. 5,000 kPa (max).	TfNSW T1150
Extrusion. (Free edge)	6 mm (max).	TfNSW T1151
Recovery. (Thickness) Recovery after 50% compression.	90% (min) except for bitumen-impregnated fillers - 70% min.	TfNSW T1150
Resistance to Accelerated Weathering.	No evidence of disintegration.	TfNSW T1155
Boiling in hydrochloric acid. (For cork only)	No signs of: disintegration, delamination, dislodgment of particles of cork, friability, lack of resiliency, change of porosity, damage by rubbing.	TfNSW T1153
Expansion. (For self-expanding cork only)	140% (min)	TfNSW T1152
Resistance to heat degradation. (For closed cell foam only)	2 mm (max)	TfNSW T1154

* The self-expanding cork type of filler may also function as a sealant.

6 OTHER REQUIREMENTS

6.1 CLOSED CELL FOAM TYPE FILLER

6.1.1 Perforations

Closed cell foam filler must be perforated parallel to one edge in such a manner that, following installation of the filler and associated concreting operations, the top of the filler can be readily and

cleanly torn off to provide a reservoir for joint sealant. The dimension between the line of perforations and the edge of the filler must be equal to the thickness of the filler, or 10 mm, whichever is greater.

This Clause is not applicable if material is to be supplied as special shapes for kerb and gutter and for mountable kerbs, etc.

6.1.2 Adhesive

The Supplier must nominate a suitable adhesive for bonding the foam to a concrete surface.

6.2 SELF-EXPANDING CORK TYPE FILLER

Mark self-expanding cork in such a manner that any expansion of the material prior to installation can be easily detected.

6.3 PACKAGING

Pack the preformed filler material in sizes convenient for handling on the job. In addition, self-expanding cork filler must be wrapped in a waterproof type material and sealed against the entry of moisture.

Pieces of joint filler that have been damaged will be rejected.

6.4 DIMENSIONS

All preformed strips must conform to the dimensions specified or shown on the Drawings.

The following tolerances will be allowed:

Thickness	± 1 mm
Depth	± 2 mm
Length	± 6 mm

7 PRODUCT CERTIFICATION

The supplier must provide a certificate of compliance verifying that the product complies with the requirements of this Specification together with test results reported on NATA endorsed test documents.

Certification must relate only to the composition on which the tests were made and must be valid for not more than three years. New certification will be required whenever changes in product composition are made.

8 PRODUCT IDENTIFICATION

Clearly mark each delivery with the following information:

(a) The name of the Supplier.

(b) The product name and/or number.

(c) The batch number or date of manufacture.

ANNEXURES 3204/A TO 3204/L – (NOT USED)

ANNEXURE 3204/M – REFERENCED DOCUMENTS

Refer to Clause 2.4.

TfNSW Test Methods

TfNSW T1150	Compression and Recovery of Preformed Joint Filler
TfNSW T1151	Extrusion of Preformed Joint Filler
TfNSW T1152	Boiling Test for Preformed Self Expanding Joint Filler
TfNSW T1153	Boiling Hydrochloric Acid Test for Preformed Cork Joint Filler
TfNSW T1154	Resistance to Heat Degradation of Closed Cell Foam Joint Filler
TfNSW T1155	Accelerated Weathering Test for Preformed Joint Filler

Australian Standards

AS/NZS ISO 9001	Quality management systems - Requirements