

# TRANSPORT FOR NSW (TfNSW)

## SPECIFICATION D&C 3204

### PREFORMED JOINT FILLERS FOR CONCRETE ROAD PAVEMENTS AND STRUCTURES

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**CONTENTS**

<b>CLAUSE</b>	<b>PAGE</b>
FOREWORD .....	ii
TfNSW Copyright and Use of this Document.....	ii
Base Specification .....	ii
1    SCOPE .....	1
2    STRUCTURE OF THE SPECIFICATION.....	1
2.1    (Not Used) .....	1
2.2    (Not Used) .....	1
2.3    (Not Used) .....	1
2.4    Referenced Documents and Definitions.....	1
3    (NOT USED).....	1
4    SUPPLIER'S QUALITY MANAGEMENT SYSTEM.....	1
5    MATERIAL REQUIREMENTS.....	2
5.1    General Properties.....	2
5.2    Properties.....	2
6    OTHER REQUIREMENTS .....	2
6.1    Closed Cell Foam Type Filler .....	2
6.2    Self-Expanding Cork Type Filler .....	3
6.3    Packaging .....	3
6.4    Dimensions .....	3
7    PRODUCT CERTIFICATION.....	3
8    PRODUCT IDENTIFICATION.....	3
ANNEXURES 3204/A TO 3204/L – (NOT USED) .....	5
ANNEXURE 3204/M – REFERENCED DOCUMENTS.....	5
LAST PAGE OF THIS DOCUMENT IS .....	5

## FOREWORD

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### BASE SPECIFICATION

This document is based on Specification TfNSW 3204 Edition 3 Revision 1.

# **TNSW SPECIFICATION D&C 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**

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:

<b>Property</b>	<b>Requirements</b>	<b>TfNSW Test Method</b>
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 Design Documentation drawings.

The following tolerances will be allowed:

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

## **7 PRODUCT CERTIFICATION**

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
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