ROADS AND MARITIME SERVICES (RMS)

RMS SPECIFICATION D&C 3204

PREFORMED JOINT FILLERS FOR CONCRETE ROAD PAVEMENTS AND STRUCTURES

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PREFORMED JOINT FILLERS FOR
CONCRETE ROAD PAVEMENTS AND
STRUCTURES

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FOREWORD

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BASE SPECIFICATION

This document is based on Specification RMS 3204 Edition 3 Revision 0.
RMS 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:

<table>
<thead>
<tr>
<th>Property</th>
<th>Requirements</th>
<th>RMS Test Method</th>
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</table>
| 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). | RMS T1150 |
| Extrusion. (Free edge)                        | 6 mm (max).                                                                  | RMS T1151 |
| Recovery. (Thickness) Recovery after 50% compression. | 90% (min) except for bitumen-impregnated fillers - 70% min.                  | RMS T1150 |
| Resistance to Accelerated Weathering.         | No evidence of disintegration.                                               | RMS 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. | RMS T1153 |
| Expansion. (For self-expanding cork only)     | 140% (min)                                                                   | RMS T1152 |
| Resistance to heat degradation. (For closed cell foam only) | 2 mm (max)                                                                 | RMS 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:

<table>
<thead>
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<th>Dimension</th>
<th>Tolerance</th>
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<tbody>
<tr>
<td>Thickness</td>
<td>± 1 mm</td>
</tr>
<tr>
<td>Depth</td>
<td>± 2 mm</td>
</tr>
<tr>
<td>Length</td>
<td>± 6 mm</td>
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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.

**RMS Test Methods**

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

**Australian Standards**

- AS/NZS ISO 9001  Quality management systems - Requirements