# TRANSPORT FOR NSW (TfNSW)

# SPECIFICATION D&C 3555

# SUBSURFACE DRAINAGE PIPE (SLOTTED AND UNSLOTTED FIBRE-REINFORCED CONCRETE)



## REVISION REGISTER

| Ed/Rev Number | Clause Number | Description of Revision | Authorised By | Date |
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| Ed 1/Rev 0 | | First issue | GM, IC<br>W Stalder | 08.07.11 |
| Ed 1/Rev 1 | Global | References to "Roads and Maritime Services" or "RMS" changed to "Transport for NSW" or "TfNSW" respectively.<br>References to "RMS Representative" changed to "Principal". | DCS | 22.06.20 |

Transport for NSW

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IC-DC-3555

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# FOREWORD

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## BASE SPECIFICATION

This document is based on Specification TfNSW 3555 Edition 4 Revision 1.

# TfNSW SPECIFICATION D&C 3555

# SUBSURFACE DRAINAGE PIPE (SLOTTED AND UNSLOTTED FIBRE-REINFORCED CONCRETE)

## 1 SCOPE

This Specification sets out the requirements for slotted and unslotted fibre-reinforced concrete pipes for use in subsurface drainage.

## 2 STRUCTURE OF THE SPECIFICATION

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

### 2.1 (NOT USED)

### 2.2 SCHEDULE OF IDENTIFIED RECORDS

The records listed in Annexure 3555/C are **Identified Records** for the purposes of Specification TfNSW D&C Q6 Annexure Q/E.

### 2.3 FREQUENCY OF TESTING

The minimum frequency of testing is shown in Annexure 3555/L.

### 2.4 REFERENCED DOCUMENTS AND DEFINITIONS

Standards, specifications and test methods are referred to in abbreviated form (e.g. AS 1234). For convenience, the full titles are given in Annexure 3555/M.

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

## 3 SUPPLIER’S QUALITY MANAGEMENT SYSTEM

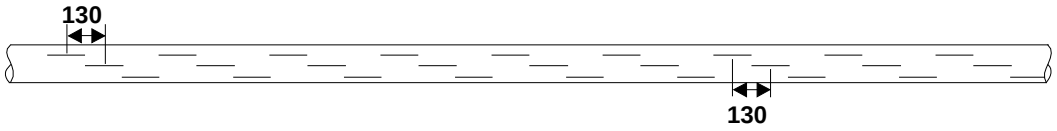
The Supplier must establish and maintain a Quality Management System complying with AS/NZS ISO 9001 as a means of ensuring that the product conforms to this Specification.

Provide evidence verifying compliance with this Clause.

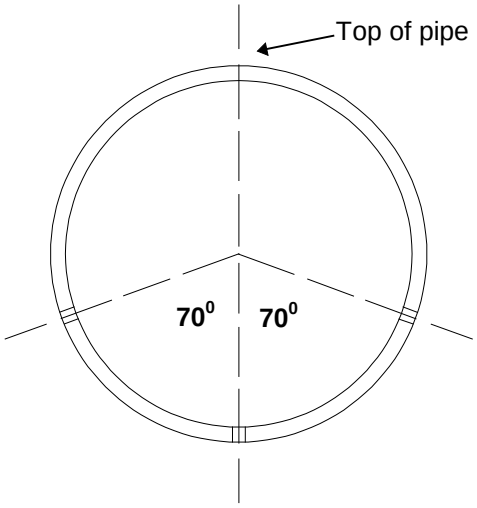
## 4 MATERIAL AND PHYSICAL REQUIREMENTS

Fibre-reinforced concrete pipes and fittings must comply with AS 4139. The pipes must be Class 4, size DN 100.

Slotting for slotted fibre-reinforced concrete pipes must be in accordance with Figure 3555.1.




**BOTTOM VIEW**




**SECTIONAL VIEW**

**Figure 3555.1 - Slotting Details**

Slot dimensions and spacing must be in accordance with the following requirements:

| | | |
|---|---|---|
| (a) | Maximum slot width | 3 mm |
| (b) | Minimum slot width | 2 mm |
| (c) | Internal length of slot | 80 ± 8 mm |
| (d) | Number of rows of slots | 3 |
| (e) | Angular separation of rows | 70 ± 5 degrees |
| (f) | Pitch of centres of slots | 130 ± 5 mm |

The spacing of slots and rows of slots are shown in Figure 3555.1.

# 5 IDENTIFICATION

Indelibly mark the top of the pipes (as shown in Figure 3555.1) with the word “TOP”.

# 6 PRODUCT CERTIFICATION

Provide a certificate of compliance verifying that the fibre-reinforced concrete pipes comply with all the requirements of this Specification together with test results reported on NATA endorsed test documents.

The certificates must be for tests not more than six (6) months old.

# ANNEXURES 3555/A TO 3555/B - (NOT USED)

# ANNEXURE 3555/C - SCHEDULE OF IDENTIFIED RECORDS

Refer to Clause 2.2.

The records listed below are Identified Records for the purposes of TfNSW D&C Q6 Annexure Q/E.

| Clause | Description of Identified Record |
|---|---|
| 6 | Certificate of compliance |

# ANNEXURES 3555/D TO 3555/K - (NOT USED)

# ANNEXURE 3555/L - MINIMUM FREQUENCY OF TESTING

| Clause | Characteristics Tested | Test Method | Minimum Frequency of Testing |
|---|---|---|---|
| 4 | Flexural strength | Appendix I of AS 4139 | One per 2,000 m or part thereof |
| 4 | Crush strength | Appendix E of AS 4139 | One per 2,000 m or part thereof |

# ANNEXURE 3555/M - REFERENCED DOCUMENTS

Refer to Clause 2.4.

**TfNSW Specifications**

TfNSW D&C Q6 Quality Management System (Type 6)

**Australian Standards**

AS 4139 Fibre-reinforced concrete pipes and fittings

AS/NZS ISO 9001 Quality management systems – Requirements