

## OCTOBER 2017 UPDATE

The October 2017 *Update* includes 1 new generic worksection, 5 new branded worksections, and the reissue of 13 NATSPEC worksections and 9 AUS-SPEC worksections. This *Update* incorporates changes in standards from March to August 2017.

### New generic worksection

- 1147 *Sprayed preservation surfacing.*

### Renamed generic worksections

- 0041 *Geometric road design* (formerly *Geometric road layout*).
- 0250 *Landscape – combined* (formerly *Landscape – gardening*).
- 1142 *Cold mix asphalt* (formerly *Bituminous cold mix*).
- 1146 *Slurry seals and microsurfacing* (formerly *Bituminous slurry surfacing*).

### Reclassified generic worksections

- 0321 *Precast concrete* (formerly 0316 *Precast concrete*).
- 0322 *Tilt-up concrete* (formerly 0317 *Tilt-up concrete*).
- 0361 *Monolithic stabilised earth walls* (formerly 0321 *Monolithic stabilised earth walls*).
- 0362 *Mud brick walls* (formerly 0322 *Mud brick walls*).
- 0363 *Straw bale walls* (formerly 0323 *Straw bale walls*).

### Reissued generic worksections

- 0185 *Timber products, finishes and treatment.*
- 0274 *Concrete pavement.*
- 0332 *Stone masonry.*
- 0421 *Roofing – combined.*
- 0423 *Roofing – profiled sheet metal.*
- 0424 *Roofing – seamed sheet metal.*
- 0425 *Roofing – shingles and shakes.*
- 0426 *Roofing – slate.*
- 0427 *Roofing – tiles.*
- 0455 *Door hardware.*
- 0552 *Metalwork – fabricated.*
- 0961 *Telecommunications cabling.*
- 0981 *Electronic security.*
- 1141 *Flexible pavement base and subbase.*
- 1142 *Cold mix asphalt.*
- 1143 *Sprayed bituminous surfacing.*
- 1144 *Asphalt (Roadways).*

- 1146 *Slurry seals and microsurfacing.*
- 1171 *Subsurface drainage.*
- 1172 *Subsoil and formation drains.*
- 1173 *Pavement drains.*
- 1174 *Drainage blankets.*

### New TECHnotes

- NTN GEN 025 *Sprayed preservation surfacing treatments.*
- NTN DES 035 *Improvement and stabilisation of unsealed roads.*
- NTN DES 036 *Need for subsurface drainage on local roads.*

### Significantly revised TECHnote

- NTN PRO 007 *Refrigerants.*

### New branded worksections

- 0325p *DEFLECTA concrete protection.*
- 0454p *EZI ROLL overhead doors.*
- 0541p *TATE access floors.*
- 0651p *TARKETT in resilient finishes.*
- 0671p *HAYMES painting.*

### Renamed branded worksections

- 0195p *DTAC tactile indicators and stair edgings* (formerly *DTAC tactile indicators and stair nosings*).
- 0531p *CSR HIMMEL in suspended ceilings – combined* (formerly *CSR CEILECTOR in suspended ceilings – combined*).
- 0552p *CON-FORM in metalwork and platforms – fabricated.* (formerly *CON-FORM in metalwork – fabricated*).

### Reclassified branded worksections

- 0428p *ASKIN XFLAM performance panel roofing* (formerly 0423p *ASKIN XFLAM performance panel roofing*).

- Air Conditioning and Mechanical Contractors' Association of Australia
- Australian Elevator Association
- Australian Institute of Architects
- Australian Institute of Building Surveyors
- Australian Institute of Building Surveyors
- Australian Institute of Quantity Surveyors
- Chief Minister, Treasury and Economic Development Directorate (ACT)
- Construction Industry Engineering Services Group
- Consult Australia
- Department of Finance (Federal)
- Department of Finance (WA)
- Department of Finance, Services and Innovation (NSW)
- Department of Housing and Public Works (QLD)
- Department of Infrastructure, Planning and Logistics (NT)
- Department of Planning, Transport and Infrastructure (SA)
- Department of Treasury and Finance (TAS)
- Department of Treasury and Finance (VIC)
- Engineers Australia
- Master Builders Australia
- Standards Australia

### SPECnotes

Construction Information Systems Limited  
Level 4, 263 Clarence Street  
SYDNEY NSW 2000  
Australia

Phone 1300 797 142  
Fax 1300 797 143  
Email [mail@natspec.com.au](mailto:mail@natspec.com.au)  
Web [www.natspec.com.au](http://www.natspec.com.au)  
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# REVISED STANDARDS

**Australian standards superseded, amended or new in June, July and August 2017, which are referred to in NATSPEC and will be taken into account in the October 2017 Update, include:**

## **AS/NZS 1477:2017 PVC pipes and fittings for pressure applications. (\$82.72)**

This standard supersedes the 2006 edition. It specifies requirements for PVC pipes and fittings for pressure applications for use below ground or above ground, where they are not exposed to direct sunlight.

Referenced documents: 0043 *Subsurface drainage (Design)*; 0071 *Water supply – reticulation and pump stations (Design)*; 0721 *Packaged air conditioning*; 0722 *Room air conditioners*; 0724 *Air handling plant – combined*; 0725 *Air handling plant – built up*; 0726 *Air handling plant – minor*; 0727 *Air handling plant – packaged*; 0751 *Mechanical piping*; 0823 *Cold and heated water*; 1171 *Subsurface drainage*; 1341 *Water supply – reticulation (Construction)*; 1352 *Pipe drainage*; 1403 *Parks and open space maintenance plan – Part 1*.

## **AS/NZS 1680 Interior and workplace lighting. Part 2.4:2017 Industrial tasks and processes. (\$130.23)**

This standard supersedes the 1997 edition. It sets out recommendations for the lighting of industrial tasks and processes that are carried out within buildings.

Referenced documents: 0171 *General requirements*; 0902 *Electrical design and install*; 0951 *Lighting*; 1342 *Water supply – pump stations (Construction)*; 1362 *Sewerage systems – pump stations (Construction)*.

## **Part 3:2017 Measurement, calculation and presentation of photometric data. (\$186.62)**

This standard supersedes AS 1680.3:1991. It specifies requirements for laboratory conditions, procedures and instrumentation for making photometric measurements on luminaires for interior and workplace lighting. It also specifies requirements for the derivation of certain photometric data needed for interior lighting calculations.

Referenced documents: 0902 *Electrical design and install*; 0951 *Lighting*.

## **Part 4:2017 Maintenance of electric lighting systems. (\$109.36)**

This standard supersedes the 2001 edition. It describes the causes of light loss in indoor electric lighting systems, from environmental, operating and age-related conditions, and recommends procedures for estimating maintenance factors for use in design calculations.

Relevant document: 0991 *Electrical maintenance*.

## **AS/NZS 1906 Retroreflective materials and devices for road traffic control purposes.**

### **Part 1:2017 Retroreflective sheeting. (\$186.62)**

This standard supersedes the 2007 edition. It specifies the performance requirements for retroreflective sheeting used in the manufacture of road signs and related traffic control devices. It does not apply to retroreflective pavement markings.

Referenced documents: 1101 *Traffic management*; 1192 *Signposting*; 1194 *Non-rigid road safety barrier system*.

### **Part 3:2017 Raised pavement markers (retroreflective and non-retroreflective. (\$155.22)**

This standard supersedes the 1992 edition. It specifies performance requirements for permanent and temporary retroreflective and non-retroreflective raised pavement markers, which are to be affixed to the pavement surface for permanent and temporary delineation purposes.

Referenced documents: 0277 *Pavement ancillaries*; 1191 *Pavement markings*.

## **AS 1940:2017 The storage and handling of flammable and combustible liquids. (\$281.24)**

This standard supersedes the 2004 edition. It provides requirements for the planning, design, construction, and safe operation of all installations in which flammable or combustible liquids are stored or handled. In separate sections it deals with minor storage, package storage and handling, storage in tanks, fuel dispensing, piping and tank auxiliaries, operations and fire protection facilities. Appendices deal with tank venting, combustion characteristics, fire exposure protection, gas-freeing precautions and principles, and power station and grid transformers.

Referenced documents: 0754 *Liquid fuels*; 0931 *Power generation – engine driven*.

## **AS 2946:1991 Suspended ceilings, recessed luminaires and air diffusers – Interface requirements for physical compatibility.**

This standard has been withdrawn and not replaced.

Referenced documents: 0531 *Suspended ceilings – combined*; 0532 *Suspended ceilings – flush lined*; 0533 *Suspended ceilings – ceiling units*; 0746 *Air grilles*; 0748 *Chilled beams*; 0902 *Electrical design and install*; 0921 *Low voltage power systems*; 0951 *Lighting*.

## **AS/NZS 3112:2017 Approval and test specification – Plugs and socket-outlets. (\$204.76)**

This standard supersedes the 2011 edition. It specifies essential safety requirements for plugs and socket-outlets intended for use at extra low or low voltages and a rated current not exceeding 32A for household or similar purposes.

Referenced documents: 0902 *Electrical design and install*; 0921 *Low voltage power systems*; 0951 *Lighting*.

## **AS/NZS 4486 Playgrounds and playground equipment.**

### **Part 1:1997 Development, installation, inspection, maintenance and operation.**

This standard is superseded by AS 4486.1:2017. It specifies requirements for the development, installation, inspection, maintenance and operation of playgrounds and playground equipment to ensure a continuing level of function and safety. It also contains requirements for information to be supplied by the manufacturer.

Referenced documents: 0252 *Landscape – surfaces*; 0262 *External sports and playground surfacing*; 1475 *Playground equipment maintenance*.

## **AS 4586 Slip resistance classification of new pedestrian surface materials.**

### **Amendment 1:2017. (Free on [www.saiglobal.com](http://www.saiglobal.com)/infostore)**

This amendment applies to clause 3 and Appendix D on the oil-wet inclining platform test method. Referenced documents: 0012 *Waterfront development*; 0274 *Concrete pavement*; 0276 *Segmental pavers – sand bed*; 0279 *Paving – on pedestals*; 0282 *Pathways and cycleways (Construction)*; 0315 *Concrete finishes*; 0319 *Auxiliary concrete works*; 0612 *Cementitious toppings*; 0613 *Terrazzo in situ*; 0631 *Ceramic tiling*; 0651 *Resilient finishes*; 0656 *Floor sanding and finishing*; 0657 *Resin based seamless flooring*; 1145 *Segmental paving*; NTN DES 001 *Slip resistance performance*.

## **AS 7240 Fire detection and alarm systems.**

### **Part 6:2017 Carbon monoxide fire detectors using electro-chemical cells. (\$ 186.61)**

This standard supersedes the 2006 edition. It adopts ISO 7240-6:2011 to specify requirements, test methods and performance criteria for point-type fire detectors using an electrochemical-cell carbon-monoxide sensor, for use in fire detection and alarm systems.

Referenced documents: 0902 *Electrical design and install*; 0972 *Fire detection and alarms*.

# NEW STANDARDS

**The most significant standards published in June, July and August 2017 which you may need to refer to in a specification, but are not yet cited in NATSPEC, include:**

## **AS 4685 Playground equipment and surfacing.**

### **Part 0:2017 Development, installation, inspection, maintenance and operation. (\$130.23)**

This new standard supersedes AS/NZS 4486.1:1997. It specifies requirements for the design, development, installation, inspection, maintenance and operation of playgrounds, including playground equipment and surfacing, to ensure a continuing level of functionality and safety.

Relevant documents: 0252 *Landscape – surfaces*; 0262 *External sports and playground surfacing*; 1475 *Playground equipment maintenance*.

## **AS 5181:2017 Use and installation of turf as an erosion, nutrient and sediment control measure. (\$130.23)**

This new standard provides requirements for the use and installation of turf as an erosion, nutrient and sediment control measure, and guidance on turf species selection and disposal.

Relevant documents: 0252 *Landscape – natural grass surfaces*.

# STRUCTURAL STEELWORK STANDARD AS/NZS 5131

The recently released Australian Standard AS/NZS 5131 *Structural steelwork – Fabrication and erection* published in late 2016 requires engineers to specify a Construction Category for structural steelwork in their project specifications. The Construction Category establishes the correct level of quality and assurance controls to ensure the structure meets the engineer's design assumptions and level of risk mitigation under obligations implicit in the Work Health & Safety Act. Kevin Rooney, Engineering Manager at NATSPEC recently presented with the Australian Steel Institute as part of their national seminar series on the impact of AS/NZS 5131. For details of the updates to NATSPEC to accommodate the requirements of AS/NZS 5131, refer to the April 17 edition of SPECnotes.



## RESPONSIBILITIES TO MAINTAIN FIRE SERVICES

Statutory and regulatory requirements, Insurance Council of Australia conditions and duty of care responsibilities are part of a suite of requirements dictating to owners of buildings the need to maintain and routinely test fire services in buildings.

AS 1851 is the Australian Standard setting out the requirements for maintenance and routine testing of fire protection and detection systems in buildings.

On completion and commissioning of new buildings, AS 1851 requires the contractor to complete a baseline data report of all the services installed in the building, which forms part of the documentation handed to the building owner. The report should detail by schedules, the systems requiring routine services and the frequency of component testing, sufficient for the owner to arrange appropriate maintenance and routine testing contracts for the fire services systems.

AS 1851 sets out the requirements, component testing frequency and report formats required for the proper maintenance of the installed fire systems.

The purpose of this note is to emphasise the importance of completing a detailed baseline data schedule, the detailing of the various fire systems requiring maintenance contracts and the cooperative liaison needed between the contractor and owner to ensure the owner is aware of his role in arranging appropriate maintenance contracts.



## AUS-SPEC AND IPWEA

AUS-SPEC is the Local Government specification system for the life cycle management of assets and is jointly developed by IPWEA and NATSPEC. Nandini Mehta, AUS-SPEC Manager, recently presented at the 2017 IPWEA International conference in Perth, on how the system has developed over the last few years. The system promotes technical and contractual consistency between Councils yet allows flexibility to edit and add project specific requirements where necessary. AUS-SPEC's main aim is to provide a specification system for local government and improve the quality of construction and maintenance of their assets in Australia.

## PAVEMENT PRESERVATION

After identifying a need for a national approach to pavement preservation, AUS-SPEC has developed 1147 *Sprayed preservation surfacing*, a worksection for the supply of materials and application of spray applied preservation treatments to preserve, protect and prolong the life of existing wearing pavement surfaces. TECHnote GEN 025 *Sprayed preservation surfacing treatments*, developed in conjunction with the new worksection, assists road owners to determine when and where to apply the most appropriate sprayed preservation surfacing to maximise benefits to their sealed road network. AUS-SPEC thanks the IPWEA, the metropolitan and rural councils, and the major pavement preservation treatment suppliers involved in this process for their assistance.

## TENDERING, PRELIMINARIES AND GENERAL REQUIREMENTS

NATSPEC separates Tendering, Preliminaries and General requirements into separate worksections. They each have the following individual functions:

Conditions of tendering:

- A pre-contract document.
- Address the conditions of tendering and do not form part of the contract documents.
- A self-contained transaction that terminates with the awarding of a contract.
- Ongoing additional project requirements should either be included in the conditions of contract or the specification (probably in the Preliminaries).

Preliminaries:

- Applicable to project-specific and site requirements of the principal not contained in the Contract.
- Address contractual requirements, generally follow the Contract clause headings, contain only additional information and should not repeat Contract clauses or include Special Conditions of Contract.
- Additional commercial clauses e.g. measurement of the work, payment for unfixed material.
- Principal's policies e.g. training policy, local buy policy, may be included in the Preliminaries.

General requirements:

- General technical material of relevance to subcontractors.
- Administrative material which is common to all technical worksections.

It is not uncommon for government and other organisations to prepare Preliminaries which contain information which would normally be located in other worksections of the project specification. It is not good practice.

## CITATION OF EUROPEAN STANDARDS

NATSPEC cites a number of EN, European Standards, primarily for situations where an Australian Standard does not exist or has been withdrawn. In the past, NATSPEC has either cited a country specific edition of the EN standard (i.e. BS EN or DIN EN), or just the EN version.

For the October 17 *Update*, NATSPEC has aligned all citations of European Standards to simply cite the EN version. All country specific editions of an EN standard are identical and therefore it is not necessary to restrict the specifier and specification user to any particular country's edition of an EN Standard.

Each of the 28 European Union countries, together with 6 other countries (Macedonia, Iceland, Norway, Serbia, Switzerland and Turkey) are obliged to adopt each EN Standard as a national standard and make it available to customers in their country, within 6 months of publication. Each country also has to withdraw any existing national standard that conflicts with the new EN Standard.

For further information on European Standards, see [www.cen.eu](http://www.cen.eu).

## SCHEDULES IN SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS

NATSPEC is a National Master Specification for use with many types and sizes of projects. As a master specification, it has adopted a standard *Template* for each worksection.

NATSPEC locates selection schedules at the end of each worksection for convenience. The information contained within the schedules may be located in other places including the following:

- Integrated within the specification text (especially for selections of single products).
- Combined as one schedule in an appendix at the end of the specification.
- Included on the drawings.
- As a standalone schedule document.

Schedules may be used to select performance requirements, products (either by generic product descriptions or by proprietary products) and execution methods (e.g. concrete finishes).

For each project, the specifier will need to select the appropriate schedule type and location according to their office documentation policy and edit the material to suit the project.

Editing of schedules in NATSPEC documents may include:

- Deleting the schedules if single product selections are integrated in the text or the schedules are not required for the project.
- Deleting properties not appropriate to the project e.g. Fire-resistance level.
- Selecting performance requirements for each property.
- Selecting products by generic descriptions or proprietary products.
- Reformatting to horizontal format from vertical format for use on drawings.

See NATSPEC TECHnote GEN 024 for additional information on using selection schedules.

## CHINA BIM UNION

In August 2017 NATSPEC hosted Professor HUANG Qiang, Chairman of the China BIM Union, for a historic signing of a Memorandum of Understanding with NATSPEC. Through this agreement a dialogue will be maintained with China, ensuring that future opportunities and progression for BIM and digital engineering in Australia are encouraged and accommodated.



## AUSTRALASIAN BIM ADVISORY BOARD



NATSPEC is proud to be a founding partner of the Australasian BIM Advisory Board. Leaders from government, industry and academia are partnering to provide leadership on the adoption of BIM and Project Team Integration (PTI). The ABAB aims to provide a coordinated approach to the development of BIM practices, standards, and requirements. New technologies and processes in BIM can lead to increased productivity and improved asset management in the built environment across Australasia through collaboration, education, innovation, and simplification. Visit [www.abab.net.au](http://www.abab.net.au) which is also accessible via NATSPEC BIM.

## PRODUCT PARTNERS BOOKLET



The 2017 issue of the Product Partners Case Study booklet features case studies from NATSPEC's Product Partners, which demonstrate the collaboration between manufacturers and designers to provide the most appropriate solutions for building projects, and ensure the highest quality. Technical articles provide support and information on the necessity of specifying and conforming to relevant standards, in order to achieve optimal project outcomes and ensure the safety of users. The booklet is available for download at [www.natspec.com.au](http://www.natspec.com.au).

## DOMESTIC ONLINE

*Domestic Online* is an online specification creator that significantly streamlines the specification writing process for residential (NCC Class 1 and 10) projects.

Instead of editing a Word document, you select the types of building elements and systems required from a list of options by ticking checkboxes. An online document based on your selections is generated. This document includes schedules for entering project-specific details such as materials and finishes. *Domestic Online* is then used to generate a Word document of the specification, complete with cover sheet and table of contents, for download.

Changes to the specification can be made simply by amending selections in the options list and schedules, and generating another Word document.

*Domestic Online* offers flexibility – the whole specification process can be completed online, or it can be used to quickly create a draft Word document for further editing once downloaded.

*Domestic Online* includes the same content as BUILDING Domestic, and is included at no extra cost as part of that package and BUILDING Professional. The existing Word document is still included. As an alternative to an annual subscription, the option of paying to create a one-off, project-specific specification is also available. For more details, visit [www.natspec.com.au](http://www.natspec.com.au).

## DO YOUR PRODUCTS CONFORM?

Check your products' evidence of conformity to relevant standards on the National Construction Product Register.

The NCPR offers:

- Quick, easy and free online access
- Authenticated evidence of conformity to standards
- Reliable service and support



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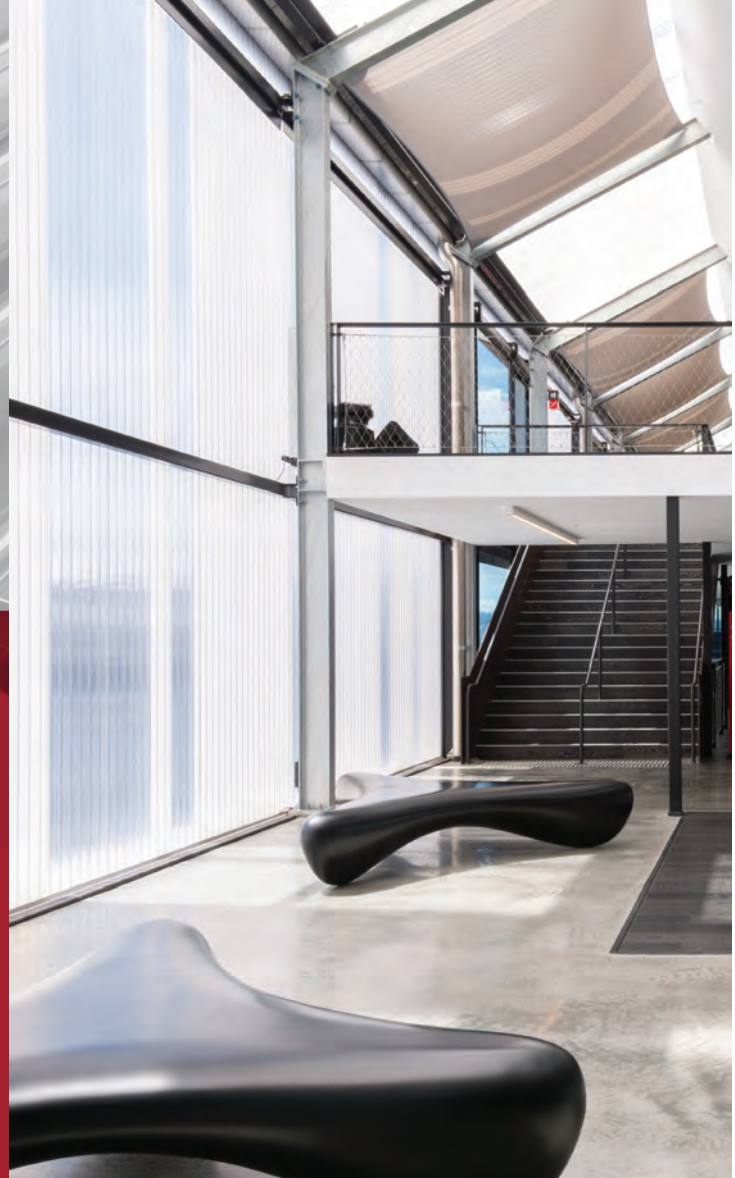


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