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GENERAL**GEN 001 Getting help (Sept 05 - Amdt Oct 12)**

Summarises the ways in which NATSPEC provides help to specification writers.

GEN 002 NATSPEC's use of standards (Oct 07)

Discusses use of Australian and other standards in specification writing.

GEN 003 Multiple contracts and 'work by others' (Oct 08)

Suggests ways in which NATSPEC can be used for projects procured using multiple contracts, also called packaged contracts or multiple prime contracts.

GEN 004 Shop drawings and samples (Oct 12 – Amdt Oct 14)

Addresses the need for shop drawings and samples, their management and the documentation of requirements in a construction contract.

GEN 005 Specifications (Jul 07 - Amdt Oct 12)

Discusses the roles, forms and importance of specifications.

GEN 006 Product specifying and substitution (Oct 07 - Amdt Apr 10)

Reviews generic and proprietary specification and NATSPEC's procedure for substitution of specified products.

GEN 007 NATSPEC updates and office master specifications (Dec 07 - Amdt Apr 12)

Offers updating strategies relating to NATSPEC information.

GEN 008 Branded versus generic worksections (Jul 08)

Defines both types of worksection and outlines their advantages.

GEN 009 Hold points and witness points (Apr 09 - Amdt Apr 12)

Defines hold points and witness points and explains their contractual implications in the context of both NATSPEC and AUS-SPEC worksections.

GEN 010 Mechanical commissioning strategies (Oct 09 - Amdt Apr 12)

Discusses alternative mechanical balancing and commissioning strategies which have a significant impact on the performance of mechanical services.

GEN 011 Specifying NCC requirements (Apr 10 - Amdt Apr 14)

Discusses specifying NCC compliance based on deemed-to-satisfy provisions or by using an alternative solution.

GEN 012 Door hardware scheduling (Oct 10 - Amdt Apr 11)

Outlines the two alternative approaches to specifying door hardware provided for in **SELECTIONS** in NATSPEC's 0455 *Door hardware* worksection.

GEN 013 Specifying quality (Jan 12 - Amdt Apr 12)

Communicating the requirements for quality is the main technical function of the specification. This TECHnote outlines how NATSPEC is used to achieve quality in construction projects.

GEN 014 Submissions and testing (Oct 13)

Addresses the specification of the various contractor's submissions and tests that may be required during the construction process.

GEN 015 Using the NATSPEC classification system to organise information (Apr 13)

Discusses how the NATSPEC National classification system can be a useful means of organising construction information other than specification content.

GEN 016 Preliminaries and contract schedules (Oct 12)

Aims to clarify items which are sometimes overlapping in the General conditions of contract and the specification's Preliminaries.

GEN 017 Using AUS-SPEC for asset management (Oct 12 - Amdt Oct 13)

Provides guidance on using the AUS-SPEC specification system for asset management.

GEN 018 Using AUS-SPEC for asset maintenance (Oct 12 - Amdt Oct 13)

Aims to describe the philosophy and components of the AUS-SPEC maintenance system for urban and open spaces, buildings and facilities, roadways, bridges and public utilities.

GEN 019 Using AUS-SPEC for contract documentation (Oct 14)

Provides an overview on using AUS-SPEC for standard and period supply and service contract documentation for the life cycle management of assets.

GEN 020 Building commissioning (Apr 13)

Provides information on the process of whole-building commissioning and the role of a Commissioning Authority on a project, discussing how NATSPEC can be used for whole-building commissioning.

GEN 023 Using AUS-SPEC for management of unsealed roads (Oct 14)

Provides guidance on using the AUS-SPEC specification system for the design, construction and maintenance of unsealed roads.

INTRODUCTION

This is an index, with abstracts, of NATSPEC TECHnotes and TECHreports which are currently available. TECHnotes are brief documents giving information on topics of interest to the design and construction industry.

TECHreports are in-depth reference documents on topics of interest to the design and construction industry.

CLASSIFICATION

Based on the classification system used for the Australian Institute of Architects (AIA) Environmental Design Guide, TECHnotes are grouped into three categories:

- General (GEN).
- Design (DES).
- Products (PRO).

AVAILABILITY

TECHnotes and TECHreports are available as follows:

- All TECHnotes and TECHreports, available at time of issue, are downloadable from **SPECbuilder Live** under Reference material and provided on Subscriber CDs in the Acrobat documents section.
- Current TECHnotes and TECHreports are placed in the Subscriber Access section of the NATSPEC website www.natspec.com.au
- Selected TECHnotes are distributed with SPECnotes.
- Selected TECHnotes are provided to the Australian Institute of Architects with a page of related questions and answers for their Continuing Education (CE) program.

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DESIGN**DES 001 Slip resistance performance (Oct 05 - Amdt Oct 14)**

Raises awareness of the design and documentation requirements for optimising slip resistance of pedestrian surface materials.

DES 002 Moisture content in timber floors (Dec 05 - Amdt Apr 13)

Addresses the ways in which the natural movement of timber floors can be accommodated.

DES 003 Fire hazard properties of insulation and pliable membranes (Jun 06 - Amdt Oct 12)

Addresses the fire hazard properties of insulation materials as dealt with in both the BCA and in NATSPEC.

DES 004 Air, moisture and condensation (Sept 05 - Amdt Oct 12)

Outlines the factors that affect the selection and detailing of vapour barriers in buildings.

DES 005 Preventing condensation on ducts and air handling plant (Dec 05 – Amdt - Apr 11)

Addresses the use of insulation to prevent condensation on ducts and air handling plant.

DES 006 Specifying concrete (Jul 07 - Amdt Apr 11)

Outlines the factors affecting the performance of concrete and how to specify it.

DES 007 Static control floors (May 07)

Discusses electrostatic charges and the basic types of static control floors.

DES 008 Preparation of concrete substrates (Oct 06 - Amdt Oct 13)

Discusses preparation of concrete substrates for secondary finishes.

DES 009 Limit states design (Apr 07 - Amdt Apr 11)

Introduces this method for designing and evaluating structures, and for unifying structural codes and standards.

DES 010 Atmospheric corrosivity categories for ferrous products (Oct 09 - Amdt Apr 14)

Recommends a method for specifying atmospheric corrosion protection systems or products by referring to standards and the Corrosion Mapping System.

DES 011 Rainwater harvesting (May 07 - Amdt Oct 12)

Suggests ways in which a NATSPEC based specification can be used to specify a rainwater harvesting system.

DES 013 BCA Energy efficiency protocol and software for housing (May 07 - Amdt Oct 12)

Discusses rating software and tools to demonstrate compliance with the BCA.

DES 014 Voluntary environmental rating schemes for buildings (May 07 - Amdt Oct 14)

Outlines the national voluntary energy efficiency schemes.

DES 015 BCA - NCC Volume One Energy efficiency provisions (May 07 - Amdt Oct 12)

Outlines BCA energy efficiency provisions for Class 2-9 buildings.

DES 016 BCA - NCC Volume Two Energy efficiency provisions (May 07 - Amdt Apr 14)

Outlines BCA energy efficiency provisions for Class 1 and Class 10a buildings.

DES 017 Selection of sealants (Oct 06 - Amdt Oct 08)

Summarises sealant types and their use for different applications.

DES 018 Bushfire protection (Oct 08 - Amdt Apr 11)

Summarises the factors influencing bushfires and the planning, construction and maintenance requirements for bushfire protection.

DES 019 Pipe support spacing (Apr 09 - Amdt Apr 11)

Tabulates the pipe support spacings nominated by several Australian standards. It covers pipes of various materials and diameters, and carrying a range of liquids and gases.

DES 020 Fire behaviour of building materials and assemblies (Oct 14)

Provides guidance on the BCA's classification of the fire behaviour of building materials and assemblies and how the use of different classes of buildings influences classification.

DES 021 Site electricity supply (Apr 13)

Highlights design and construction issues for consideration and suggests suitable NATSPEC worksections for the documentation of electricity supplies.

ALPHABETICAL ORDER

Air, moisture and condensation - DES 004

Airborne sound insulation - DES 032

Atmospheric corrosivity categories for ferrous products - DES 010

BCA - NCC Volume One Energy efficiency provisions - DES 015

BCA - NCC Volume Two Energy efficiency provisions - DES 016

BCA Energy efficiency protocol and software for housing – DES 013

Branded versus generic worksections - GEN 008

Building commissioning – GEN 020

Bushfire protection - DES 018

CCA (copper chrome arsenate) treated timber-PRO 001

Ceramic tile and adhesive selection - PRO 004

Door hardware scheduling - GEN 012

Duct leakage and leakage testing - DES 033

Fire behaviour of building materials and assemblies - DES 020

Fire hazard properties of insulation materials - DES 003

Formaldehyde - indoor air quality - PRO 005

Getting help - GEN 001

Grass seeding and turfing- DES 028

Hold points and witness points - GEN 009

Impact sound insulation – DES 027

Information classification systems and the Australian construction industry – TR02

Limit states design - DES 009

Living walls and roofs - DES 026

Mechanical commissioning strategies - GEN 010

Mechanical design and install HVAC checklist - DES 025

Mechanical services pipe and vessel insulation - DES 023

Microbial control - DES 022

Mineral wool - PRO 002

Moisture content in timber floors - DES 002

Multiple contracts and 'work by others' - GEN 003

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DES 022 Microbial control (Oct 10 - Amdt Apr 14)

Discusses the requirement for microbial control in building services and how this is dealt with in NATSPEC.

DES 023 Mechanical services pipe and vessel insulation (Oct 10 - Amdt Oct 12)

Addresses the selection of appropriate levels of insulation for piping, vessels and heat exchangers with curved surfaces.

DES 024 Water sensitive urban design (WSUD) (Oct 10 - Amdt Oct 12)

Outlines the objectives and application of water sensitive urban design principles and suggests where they can be implemented in AUS-SPEC.

DES 025 Mechanical design and install HVAC checklist (Apr 11)

Provides a checklist intended to assist the architect or building designer in the assessment of proposals for the design and installation of HVAC systems.

DES 026 Living walls and roofs (Apr 12)

Highlights design and construction issues and suggests suitable NATSPEC worksections for the documentation of living walls and roofs.

DES 027 Impact sound insulation (Oct 12)

Addresses the use of impact sound insulation in floor systems.

DES 028 Grass seeding and turfing (Oct 12)

Provides guidance on the selection of grass seed mixes and turf species for general landscaping.

DES 029 Native grass lawns (Apr 13)

Discusses several of the native grass species suitable for lawn applications.

DES 030 Seismic design actions on non-structural components (Apr 14)

Discusses the requirements of AS 1170.4 for seismic restraint to the non-structural components of a building.

DES 031 Specifying R-Values (Apr 14)

Describes the various meanings of R-Value and the ways in which designers and specifiers can document compliance with statutory requirements.

DES 032 Airborne sound insulation (Oct 14)

Addresses the use of insulation to reduce the transmission of airborne sound between habitable rooms.

DES 033 Duct leakage and leakage testing (Oct 14)

Discusses testing of duct systems to AS 4254.2 to reduce energy consumption and improve the quality of the service delivered.

PRODUCTS**PRO 001 CCA (copper chrome arsenate) treated timber (Oct 05 - Amdt Apr 11)**

Discusses the issues and alternatives to this form of timber treatment.

PRO 002 Mineral wool (Jun 06 - Amdt Oct 12)

Discusses the manufacture, properties and safety issues related to the use of mineral wool.

PRO 003 Warranties for steel protective paint coatings (Apr 12)

Discusses the requirements for and availability of warranties for steel protective coatings.

PRO 004 Ceramic tile and adhesive selection (Oct 12 – Amdt Oct 14)

Provides guidance to specifiers on the selection of ceramic tiling and adhesives used for fixing the tiles.

PRO 005 Formaldehyde - indoor air quality (Apr 13)

Discusses the effects and control of formaldehyde emissions within a building and how NATSPEC can be used to meet the mandatory requirements for formaldehyde emissions.

PRO 006 Glass types used in buildings (Oct 13)

Provides guidance on the types of glass used in buildings, their properties and the manufacturing processes involved.

TECHreports**TR01 Specifying ESD (Oct 14)**

Outlines how a NATSPEC-based specification can be used to give effect to ESD principles and opportunities in the building context.

TR02 Information classification systems and the Australian construction industry (Oct 08) available at bim.natspec.org

Provides an overview of the use of classification systems for organising construction information for various purposes.

Native grass lawns - DES 029

NATSPEC for refurbishment, retrofitting and adaptive re-use – TR04

NATSPEC updates and office master specifications - GEN 007
NATSPEC's use of standards - GEN 002

Pipe support spacing (diameters, and carrying a range of liquids and gases - DES 019
Preliminaries and contract schedules - GEN 016

Preparation of concrete substrates - DES 008

Preventing condensation on ducts and air handling plant - DES 005

Procurement: Past and present – TR06

Product specifying and substitution - GEN 006

Rainwater harvesting - DES 011

Selection and design of building IT systems – TR05

Selection of sealants - DES 017

Seismic design actions on non-structural components – DES 030

Shop drawings and samples - GEN 004

Site electricity supply - DES 021

Slip resistance - DES 001

Specifications - GEN 005

Specifying BCA requirements - GEN 011

Specifying concrete - DES 006

Specifying design and construct for mechanical services – TR03

Glass types used in buildings – PRO 006

Specifying ESD - TR01

Specifying quality - GEN 013

Specifying R-Values – DES 031

Static control floors - DES 007

Submissions and testing – GEN 014

Using AUS-SPEC for asset management - GEN 017

Using AUS-SPEC for asset maintenance - GEN 018

Using AUS-SPEC for contract documentation – GEN 019

Using AUS-SPEC for management of unsealed roads – GEN 023

Using the NATSPEC classification system to organise information - GEN 015

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TR03 Specifying design and construct for mechanical services (Oct 14)

Outlines how NATSPEC may be used to prepare Design and Construct mechanical specifications.

TR04 NATSPEC for refurbishment, retrofitting and adaptive re-use (Oct 14)

Outlines how a NATSPEC based specification may be used for refurbishment and adaptive re-use projects.

TR05 Selection and design of building IT systems (Oct 14)

Provides guidance on how the component parts can be configured and how a satisfactory overall IT installation can be achieved using NATSPEC worksections.

TR06 Procurement: Past and present (Oct 14)

Outlines the major procurement systems used in the construction industry today, and how procurement has evolved from past methods.

BIM Documents**NATSPEC Project BIM Brief Template**

A Project BIM Brief documents the specific requirements of a project. It can be developed using the NATSPEC Project BIM Brief template. In addition to identifying the project and members of the project team, it provides places to specify what BIM is to be used for on the project. It is also used to record what standards from the NATSPEC BIM Reference Schedule will apply. This arrangement allows the necessary flexibility for selecting references to suit the particulars of the project.

NATSPEC National BIM Guide

The Guide's core document is a reference document that defines roles and responsibilities, collaboration procedures, approved software, modelling requirements, digital deliverables and documentation standards. It documents a range of possible uses for BIM on projects.

NATSPEC BIM Reference Schedule

A list of documents and standards provided for consideration as references that can be cited in the National BIM Guide. The specific documents chosen to be applicable to a project are recorded in the Project BIM Brief.

BIM Management Plan Template

The Template is an editable Word file which can be used to create a BIM Management Plan (BMP).

NATSPEC BIM Paper 001: BIM and LOD

This BIM Paper provides an introduction to the concept of Level of Development (LOD) and its value in the management of the Building Information Modelling (BIM) process. It includes recommendations about implementing LOD on projects and guidance on developing and interpreting LOD Tables.

NATSPEC BIM Paper 002: Getting Started with BIM

This BIM Paper is for those who have been seriously considering implementing BIM within their organisation and are now asking 'What do we do next'? It covers the preparation and planning required by architectural or engineering personnel who want to make implementation happen. It provides generic guidance on the topic and discusses some of the decisions to be made and issues which need to be considered.

NATSPEC BIM Scheduling Guidelines

These Guidelines summarise the findings of the 2010 NATSPEC BIM Scheduling project.

Part A sets out working principles for allocating properties to objects in digital models for scheduling purposes. The aim of these principles is to facilitate a consistent approach to scheduling and thereby improve information exchange in the construction industry.

Part B outlines general concepts associated with schedules that form the basis of the working principles set out in Part A.

Voluntary environmental rating schemes for buildings - DES 014

Warranties for steel protective paint coatings - PRO 003

Water sensitive urban design (WSUD) - DES 024