

OCTOBER 2010 Update

The October 2010 *Update* includes 3 new generic worksections, 11 new branded worksections, 4 new TECHnotes and the reissue of 15 AUS-SPEC and 22 NATSPEC worksections. This *Update* also incorporates changes in standards from September 2009 to August 2010 for AUS-SPEC and March to August 2010 for NATSPEC. View the PDF of your package to see the highlighted changes.

New Generic worksections

0140 Preliminaries - ABIC BW-1
0148 Preliminaries - ABIC EW-1
0761 Refrigeration

Deleted worksections

0148 Preliminaries - ABIC MW-1
0149 Preliminaries - ABIC SW-1

New Branded worksections

0193 SAYFA roof access and fall protection
0310 PENETRON admixtures in concrete
0346 DULUX intumescent coatings in structural fire protective coatings
0411 DURAM waterproofing – external and tanking
0428 DANPALON roof glazing
0429 SOLATUBE tubular daylight systems
0434 DANPALON translucent façade cladding
0471 KNAUF insulation and sarking membranes
0554 SAYFA stairs, ladders, walkways and guardrails
0621 DURAM waterproofing – wet areas
0981 KABA electronic security access controls

Renamed AUS-SPEC worksections

0075 Control of erosion and sedimentation (Design) (formerly Control of erosion and stormwater management)
1102 Control of erosion and sedimentation (Construction) (formerly Control of erosion and sedimentation)
1163 Rigid road safety barrier systems (formerly Rigid concrete and road safety barrier systems (Public domain))
1194 Non-rigid safety barrier systems (formerly Non-rigid road safety barrier systems (Public domain))
1433 Footpath and kerb ramp repairs (formerly Footpath and kerb ramp repairs adjacent to footways)
1442 Boat ramps (formerly Boat ramp maintenance)
1461 Swimming enclosures (formerly Swimming enclosures maintenance)
1471 Barbecues (formerly Barbecues maintenance)
1472 Drinking fountains (formerly Drinking fountains maintenance)

1473 Barriers (formerly Fences, rails, racks, guards and barriers)
1474 Lighting (formerly Lighting maintenance)
1475 Playground equipment (formerly Playground equipment maintenance)
1476 Park furniture (formerly Park furniture maintenance)
1477 Sports ground facilities (formerly Sports ground facilities maintenance)
1676 Road reserve signs (formerly Road reserve regulatory warning and standard signs)
1881 Beach cleaning (formerly Beach cleaning management)

Reclassified AUS-SPEC worksection

0122 Conditions of tendering (AUS-SPEC) (formerly 0121)

Reissued AUS-SPEC worksections

See article inside.

Reissued NATSPEC worksections

0310 Concrete - combined
0461 Glazing
0467 Glass components
0524 Partitions – glazed
0525 Cubicle systems
0611 Plastering
0612 Cementitious toppings
0712 Water heating boilers
0713 Cooling towers
0714 Mechanical pumps
0744 Ductwork insulation
0752 Mechanical piping insulation
0811 Sanitary fixtures
0812 Tapware
0813 Water heaters
0814 Hydraulic pumps
0911 Cable design and install
0921 Low voltage power systems
0941 Switchboards – proprietary
0942 Switchboards – custom-built
0943 Switchboard components
0979 Lightning protection

New TECHnotes

GEN 012 Door hardware schedules
DES 022 Microbial control
DES 023 Mechanical pipe and vessel insulation
DES 024 Water sensitive urban design

- > Air Conditioning and Mechanical Contractors' Association of Australia
- > Australian Council of Built Environment Design Professions
- > Australian Elevator Association
- > Australian Institute of Architects
- > Australian Institute of Building
- > Australian Institute of Building Surveyors
- > Australian Institute of Quantity Surveyors
- > Building Commission Victoria
- > Construction Industry Engineering Services Group
- > Consult Australia
- > Department for Transport, Energy and Infrastructure (SA)
- > Department of Construction and Infrastructure (NT)
- > Department of Finance and Deregulation (Federal)
- > Department of Public Works (QLD)
- > Department of Services, Technology and Administration (NSW)
- > Department of Territory and Municipal Services (ACT)
- > Department of Treasury and Finance (TAS)
- > Department of Treasury and Finance (WA)
- > Engineers Australia
- > Master Builders Australia
- > Standards Australia

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STANDARDS REVISING

Australian standards superseded, amended or withdrawn in June, July and August 2010 which are referred to in NATSPEC or AUS-SPEC and are taken into account in the October 2010 *Update*, include:

AS/NZS 1158 Road lighting.

Part 1.3:1997 Vehicular traffic (Category V) lighting - Guide to design, installation, operation and maintenance.

This standard is superseded by AS/NZS 1158.1.2:2010 and is withdrawn.

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

AS 1597 Precast reinforced concrete box culverts.

Part 1-2010 Small culverts (not exceeding 1200 mm width and 900 mm depth). (\$121.27)

This standard supersedes the 1974 edition.

Referenced worksection: 1353 *Precast box culverts*.

AS 1720 Timber structures.

Part 1-2010 Design methods. (\$197.73)

This standard supersedes the 1997 edition. It provides a code of practice for the design and acceptance of timber structures and elements and includes design methods and design data appropriate for commonly encountered structural elements and materials and requirements to be met for specification of the design, installation and maintenance of timber structures.

Referenced worksections: 0301 *Piling*; 0381 *Structural timber*; 0382 *Light timber framing*.

AS 1761-1985 Helical lock-seam corrugate steel pipes.

This standard is superseded by AS/NZS 2041.2:2010.

Referenced worksections: 0313 *Concrete post-tensioned*; 1352 *Pipe drainage*.

AS/NZS 2041 Buried corrugated metal structures.

Part 4:2010 Helically formed sinusoidal pipes. (\$101.73)

This new standard supersedes AS 1761-1985. It sets out requirements for the manufacture of full circular shape corrugated sinusoidal metal pipes manufactured from galvanized steel, polymer-coated steel, aluminized steel and aluminium strip using a continuous helical lock-seam. Properties are given for design and tables of maximum and minimum cover are included for structure selection.

Relevant worksection: 0313 *Concrete post-tensioned*; 1352 *Pipe drainage*.

AS/NZS 2243 Safety in laboratories.

Part 6:2010 Plant and equipment aspects. (\$91.56)

This standard supersedes the 1990 edition, which is withdrawn. It sets out requirements and recommendations designed to promote safe working practice relevant to the operation of plant and equipment in laboratories. It describes the nature of the potential hazards. It also covers safe working practices relevant to the use of compressed gas cylinders and

cryogenic substances.

Referenced worksection: 0755 *Medical gas systems*.

AS 2845 Water supply – Backflow prevention devices.

Part 1-2010 Materials, design and performance requirements. (\$202.42)

This standard supersedes the 1998 edition. It specifies requirements for registered air gaps including those incorporated in break tanks used as backflow prevention devices for the protection of water supplies.

Referenced worksections: 0823 *Cold and heated water*; 0826 *Greywater systems*.

Part 2-2010 Registered air gaps and registered break tanks. (\$59.88)

This standard supersedes the 1996 edition. It specifies requirements for registered air gaps including those incorporated in break tanks used as backflow prevention devices for the protection of water supplies.

Referenced worksection: 0823 *Cold and heated water*.

Part 3-2010 Field testing and maintenance of testable devices. (\$101.73)

This standard supersedes the 1993 edition. It specifies requirements for field testing and maintenance of backflow prevention devices specified in AS 2845.1 and for air gaps and break tanks specified in AS 2845.2 as registered by the relevant authorities.

Referenced worksections: 0792 *Mechanical maintenance*; 0823 *Cold and heated water*.

AS/NZS 3679 Structural steel.

Part 1:2010 Hot-rolled bars and sections. (\$93.50)

This standard supersedes the 1996 edition. It specifies the requirements for the production and supply of hot-rolled structural steel bars and sections.

Referenced worksections: 0193 *Metals and prefinishes*; 0301 *Piling*; 0321 *Monolithic stabilized earth walling*; 0322 *Mud brick walling*; 0331 *Brick and block construction*; 0332 *Stone masonry*; 0334 *Block construction*; 0335 *Brick construction*; 0341 *Structural steel*; 0523 *Partitions – brick and block*; 1192 *Signposting*.

AS/NZS 4600:2005 Cold-formed steel structures.

Amendment 1:2010 (Free on www.saiglobal.com/shop)

This extensive amendment applies to clauses 1.5.1.4(b)(i), 1.5.3.2, 1.6.3(a), 2.4.2(a), 3.3.2.3(d), 3.3.6.2, 3.3.8.4, 3.4.1, 4.3.3.4, 5.2.1, 5.2.2.2, 5.4.3.3, 7.2.2.2, Equations 2.2.1.2(5), 2.2.1.3(3), 2.2.1.3(5), 2.4.2(9), 3.3.3.2(12), 3.3.3.3(5), 3.3.3.3(7), 3.3.4(3), 3.3.4.2(4), 3.3.7(2), 3.3.8.1(7), 3.3.8.1(8), 3.4.1(3), 3.4.3(1), 3.4.6(2), 3.6.2(1), 3.6.2(2), 3.6.2(3), 5.2.4.2(4), 5.2.6.2(5), 5.3.3(2), 5.3.3(3), 5.3.3(4), 5.3.4.3, 5.4.2.2(2), 5.4.2.3(5), 5.4.2.3(6), D1(11), D2(5), D2(8), D2(10) to D2(16), D3(2), Tables 1.4, 1.6, 2.4.2, 3.3.6.2(A) and 3.3.6.2(B), Figures 2.3.2(A) (a) and (b), 2.3.2(B) (a) and (b), 2.4.2, 5.2.6 (d), (e), (f) and (g), and E1, and Appendices A, B, D and E.

Referenced worksections: 0331 *Brick and block construction*; 0332 *Stone masonry*; 0334 *Block construction*; 0335 *Brick construction*; 0341 *Structural steel*;

0342 *Light steel framing*; 0522 *Partitions – framed and lined*; 0523 *Partitions – brick and block*.

STANDARDS NEW

The most significant standards published in June, July and August 2010 which you may need to refer to in a specification, but were not cited in NATSPEC or AUS-SPEC, include:

AS/NZS 1158 Lighting for roads and open spaces.

Part 1.2:2010 Vehicular traffic (Category V) lighting - Guide to design, installation, operation and maintenance. (\$169.38)

This new standard supersedes AS/NZS 1158.1.3:1997 which is withdrawn. It sets out requirements, background information, guidelines and other relevant information for the design, installation, operation and maintenance of Category V lighting schemes intended to comply with AS/NZS 1158.1.1.

Relevant worksections: 0902 *Electrical design and install*; 0951 *Lighting*.

AS/NZS 2041 Buried corrugated metal structures.

Part 4:2010 Helically formed sinusoidal pipes. (\$101.73)

This new standard supersedes AS 1761-1985. It sets out requirements for the manufacture of full circular shape corrugated sinusoidal metal pipes manufactured from galvanized steel, polymer-coated steel, aluminized steel and aluminium strip using a continuous helical lock-seam. Properties are given for design and tables of maximum and minimum cover are included for structure selection.

Relevant worksections: 0313 *Concrete post-tensioned*; 1352 *Pipe drainage*.

AS 4933 Digital television - requirements for receivers.

Part 1-2010 VHF/UHF DVB-T television broadcasts. (\$94.05)

This standard supersedes the 2003 edition. It provides television receiver manufacturers with the technical specifications and requirements relating to digital television receivers intended to be used in Australia to receive and decode free-to-air DTTB transmissions that comply with the Australian DTTB transmission standard AS 4599.1-2007.

Relevant worksection: 0962 *Television distribution systems*.

Revisions to AS 1684 Supplements for 2010

In June 2010, Standards Australia released revised editions of AS 1684 Parts 2, 3 and 4 which are expected to be referenced in the BCA 2011.

Revisions to the standard for timber framing in residential construction include minor revisions to the span table values for stress grades MGP 10, MGP 12 and MGP 15 bringing them into alignment with AS 1720.

The span tables are included in the 90 Supplements which form an integral part of AS 1684 Parts 2 and 3.

AUS-SPEC News: Public Utilities worksections reviewed

The AUS-SPEC October 2010 *Update* has focused on a review of the design and construction worksections of the *Public utilities* package. This package has been redefined as follows:

The AUS-SPEC **Public utilities** package is applicable to both metropolitan and regional Local Government Councils for use in the design, construction and maintenance of stormwater drainage and regional Local Government Councils only for use in the design and construction of water supply and sewerage systems. It covers planning and design, tendering and contract preliminaries, construction, maintenance and operations of public utilities (water supply, water cycle management, sewerage systems and cleaning and waste management).

AUS-SPEC **Public utilities** depends on a Maintenance Management Plan (MMP) and Activity Contract Requirements (ACR) to organise and ensure quality maintenance for various activities.

AUS-SPEC TECHguides provide guidelines and examples for the preparation of specifications. This package is for Engineering Services, Environmental Services and Maintenance Managers.

Public utilities worksections reissued for the October 2010 Update include:

007 PLANNING AND DESIGN – Public utilities subgroup.

- 0071 Water supply - reticulation and pump stations (Design).
- 0074 Stormwater drainage (Design).
- 0075 Control of erosion and sedimentation (Design).
- 0076 Sewerage systems - reticulation and pump stations (Design).

13 CONSTRUCTION – PUBLIC UTILITIES workgroup.

- 1341 Water - supply reticulation and pump stations (Construction).
- 1351 Stormwater drainage (Construction).
- 1352 Pipe drainage.
- 1353 Precast box culverts.
- 1354 Drainage structures.
- 1361 Sewerage systems - reticulation and pump stations (Construction).
- 1391 Service conduits.
- 1392 Trenchless conduit installation.

Other AUS-SPEC worksections reissued for the October 2010 Update include:

- 0041 Geometric road layout.
- 0160 Quality (Design).
- 0179 General requirements (Construction).

Reissued worksections have been externally reviewed by subscribers and industry bodies prior to being reissued.

Key improvements

- Structural revision of each worksection based on a standard *Template* which has been developed to reflect the construction sequence and improve clarity and uniformity whilst updating the existing information.
- Alignment of the water supply and sewerage worksections with the Water Services Association of Australia (WSAA) codes and acknowledgement of the various Utility Authorities publications.
- Review of the drainage worksections with respect to current industry standards.
- Inclusion of Water Sensitive Urban Design (WSUD) principles, such as stormwater harvesting and re-use, in the relevant design and construction worksections. A new NATSPEC TECHnote DES 024 *Water sensitive urban design* has been developed and cited in the relevant worksections.
- New **Responsibilities** clause to define worksection objectives and performance.
- New *Guidance* text (in green) to assist the specifier in developing the specification. Expanded **Abbreviations** and **Definitions** clauses.
- New prompts [complete/delete] with associated *Guidance* text assist the specifier to input project specific requirements.
- Recasting of AUS-SPEC language in the imperative mood for clarity and brevity.
- Keywords at the start of each paragraph to assist in identification of unique clauses and simplification of the text structure.
- Documents which are referenced only in *Guidance* text are now listed in **Referenced documents** *Guidance*/Hidden text only.

00 PLANNING AND DESIGN - Public utilities

- Revised format based on a new standard *Template* under the main clause headings: **General**, **Pre design planning**, **Design criteria** and **Documentation**.

13 CONSTRUCTION – PUBLIC UTILITIES

- Revised format based on a new standard *Template*, under the main clause headings: **General**, **Preconstruction planning**, **Materials**, **Execution** and **Measurement and payment**. The Preconstruction planning clause has been introduced to accommodate issues to be addressed by the Contractor.
- **HOLD POINTS** and **WITNESS POINTS** are clearly defined and summarised in a table to assist the Contractor in planning activities which require prior approval.
- A list of **Submissions** is included to assist the Contractor in determining what is required to be submitted for approval to progress the works.

- Revised **Measurement and payment** clause and presentation of **Pay items** in tabular form including item, unit and description of works.

Refer to the *AUS-SPEC Update Summary* provided with your package for more information on revisions to particular reissued worksections as well as changes to other worksections.

Remember that the pdf files of your package are fully searchable and any change to *Template* text is highlighted for easy identification.

Subscribers should find this *Update* useful for compiling specifications for new and upgrades to the existing infrastructure for public utilities works. We appreciate any feedback on AUS-SPEC via email to aus-spec@natspec.com.au

Hydraulic Package now includes 0782 Mechanical electrical - minor

To facilitate preparation of stand-alone hydraulics specifications, the *Hydraulics* package will include the 0782 *Mechanical electrical – minor* worksection from the October 2010 *Update*.

This worksection is a simplified design and install type specification without Selection schedules and is applicable to the provision of electrical services for hydraulic plant where the connection is not provided by an electrical contractor. It can be used for typical electrics associated with pumps, control systems and other electrically connected hydraulics plant. It includes cabling systems, switchboards, motors and motor starters.

Those using 0782 *Mechanical electrical – minor* in a hydraulics specification should note the following:

- It is an unaltered *Mechanical* worksection and may require some minor editing e.g. remove *Mechanical* from the title.
- Due to its national classification number, SPECbuilder will place 0782 ahead of other hydraulics worksections. Specifiers may wish to move it to another more appropriate location.

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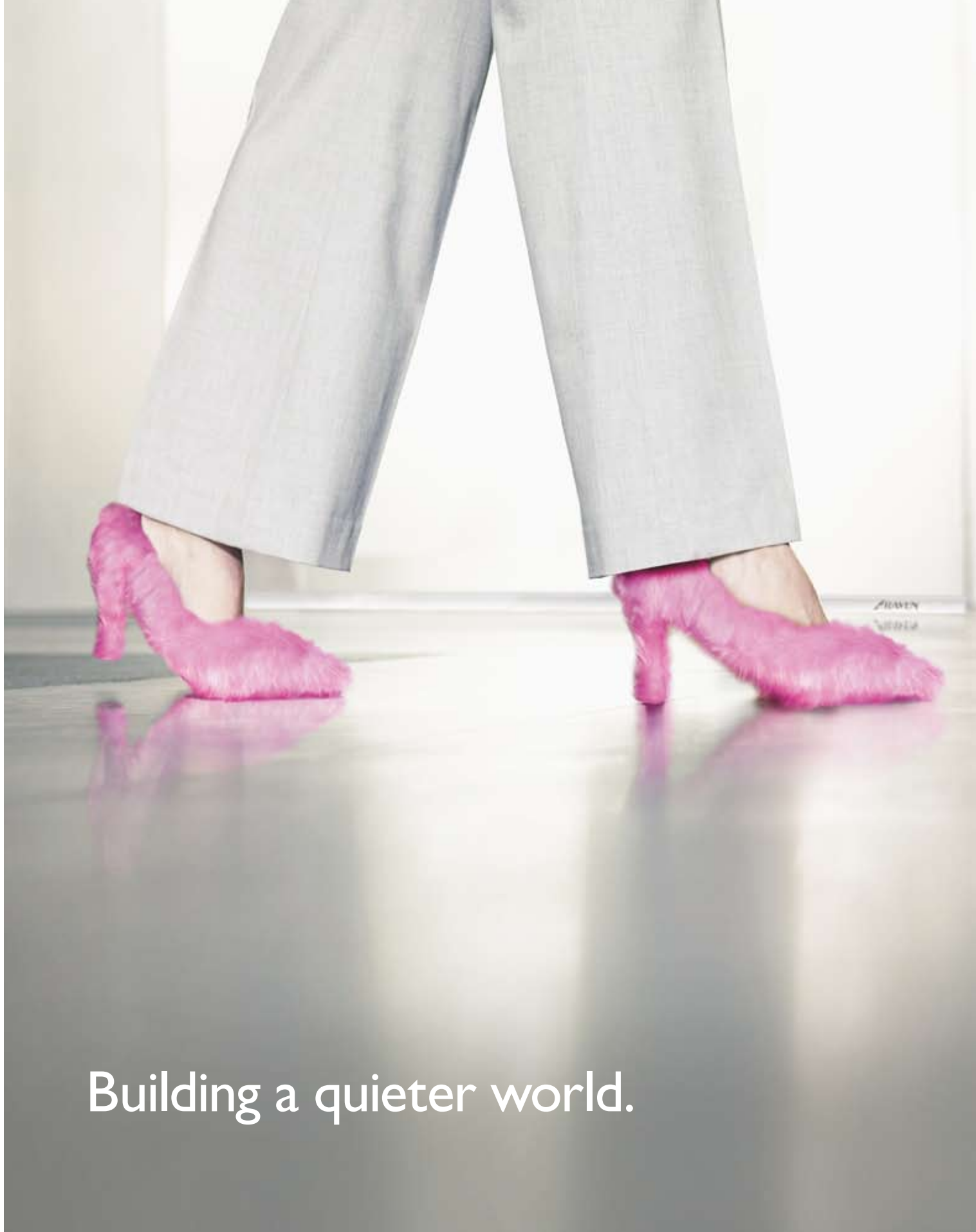
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