Coach Screw / Hexagon Head Wood Screw
BPIR Declaration

Version: v1

Designated building product: Class 1

Declaration

Wurth New Zealand Ltd has provided this declaration to satisfy the provisions of Schedule 1(d) of the Building (Building Product Information Requirements) Regulations 2022.

Product/system

Name	Coach Screw / Hexagon Head Wood Screw
Line	
Identifier	Coach Screw / Hexagon Head Wood Screw

Description

A hexagon head coach screw is typically used for securing heavy timber or attaching items to wood. It features a hexagonal head that allows for greater torque to be applied with tools like spanners or wrenches, and an externally threaded cylindrical shaft that tapers to a point at the tip for easy insertion into wood and other materials.

Scope of use

Heavy Timber Construction: Hex Head Coach Screws are extensively used for holding together timber components, making them ideal for construction projects involving wood.

Metal to Timber Fixing: Hex Head Coach Screws can be used to securely attach metal hardware to timber structures.

Masonry and Concrete: With the appropriate wall plugs, these screws can also be used to fix heavy objects to masonry or concrete surfaces.

Conditions of use

The conditions of use for hex head coach screws are important to ensure their effectiveness and longevity. Here are some key considerations:

Material Compatibility: Ensure that the coach screws are compatible with the materials they will be fastening. For example, galvanized screws are suitable for outdoor use due to their corrosion resistance.

Pilot Holes: Always drill pilot holes before inserting coach screws, especially in wood, to prevent splitting. The pilot hole diameter should be half the diameter of the screw for softwood and three-quarters for hardwood.

Correct Tools: Use the correct size spanner, wrench, or impact socket to tighten or loosen the screws to avoid damaging the head. Measure across the flat edges of the head for the correct size.

Washers: It's advisable to use a washer to prevent the screw head from embedding into the wood on impact, which also facilitates easier removal if necessary.

Masonry Use: When using coach screws for masonry or concrete, drill a hole with an SDS Drill Bit and use a wall plug that matches the hole's size in diameter and depth for a secure hold.

Standards Compliance: Adhere to relevant standards such as AS/NZS 1393:1996 for dimensions, marking requirements, and material requirements for steel coach screws.

Following these conditions will help ensure that the hex head coach screws are used safely and effectively for their intended applications.

Relevant building code clauses

B1 Structure – B1.3.1, B1.3.2, B1.3.3 (b, d, e, f, g, h, j, q), B1.3.4

B2 Durability – B2.3.1 (a)

F2 Hazardous building materials – F2.3.1

Contributions to compliance

Clause B1 (Structure): These screws must be structurally sound to ensure they can adequately support the loads they will carry without failing. They should be made of materials and possess mechanical properties that meet the standards for structural integrity and safety.

Clause B2 (Durability): The durability of hex head coach screws is essential for the long-term stability of the structures they are used in. They should be resistant to environmental conditions such as moisture and corrosion, ensuring they maintain their strength over time.

Clause F2 (Hazardous Building Materials): Hex head coach screws should not contain materials that are hazardous to health. They must not release harmful substances into the environment during their service life, thus safeguarding people from potential exposure to toxic elements.

The specific requirements for hex head coach screws can be found in the AS/NZS 1393:1996 (R2016) standard, which specifies dimensions, marking requirements, and material requirements for coach screws used in timber structures2. Compliance with this standard ensures that the screws contribute to the overall compliance with the mentioned building code clauses.

For detailed information on compliance, it is advisable to consult the official building codes and standards, which provide comprehensive guidelines on the use of hex head coach screws in construction projects.

Supporting documentation

The following additional documentation supports the above statements:

None added

For further information supporting Coach Screw / Hexagon Head Wood Screw claims refer to our website.

Contact details

Manufacture location	Overseas
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Appendix

Note: The below appendix includes information relating to BPIR Ready.

Publishing this information is not a requirement under BPIR. Its inclusion here is to provide a reference for how this BPIR summary was generated as well as to help summary creators understand the performance clauses suggested by BPIR Ready.

BPIR Ready selections

Category: Fixings and fasteners

Building code performance clauses

B1 Structure

B1.3.1

Buildings, *building elements* and *sitework* shall have a low probability of rupturing, becoming unstable, losing equilibrium, or collapsing during *construction* or *alteration* and throughout their lives.

B1.3.2

Buildings, *building elements* and *sitework* shall have a low probability of causing loss of amenity through undue deformation, vibratory response, degradation, or other physical characteristics throughout their lives, or during *construction* or *alteration* when the *building* is in use.

B1.3.3

Account shall be taken of all physical conditions likely to affect the stability of *buildings*, *building elements* and *sitework*, including:

- (b) imposed gravity loads arising from use
- (d) earth pressure
- (e) water and other liquids
- (f) earthquake
- (g) snow
- (h) wind
- (j) impact
- (q) time dependent effects including creep and shrinkage

B1.3.4

Due allowances shall be made for:

a. the consequences of failure,
b. the intended use of the *building*,
c. effects of uncertainties resulting from *construction* activities, or the sequence in which *construction* activities occur,
d. variation in the properties of materials and the characteristics of the site, and
e. accuracy limitations inherent in the methods used to predict the stability of *buildings*

B2 Durability

B2.3.1

Building elements must, with only normal maintenance, continue to satisfy the performance requirements of this code for the lesser of the *specified intended life* of the *building*, if stated, or:

- (a) the life of the building, being not less than 50 years, if: those building elements (including floors, walls, and fixings) provide structural stability to the building, or those building elements are difficult to access or replace, or failure of those building elements to comply with the building code would go undetected during both normal use and maintenance of the building

F2 Hazardous building materials

F2.3.1

The quantities of gas, liquid, radiation or solid particles emitted by materials used in the *construction* of *buildings*, shall not give rise to harmful concentrations at the surface of the material where the material is exposed, or in the atmosphere of any space.