Threaded Rod / Allthread
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	Threaded Rod / Allthread
Line	
Identifier	Threaded Rod / Allthread

Description

A threaded rod, commonly known as allthread, is a long rod that is threaded from one end to the other. The threading may extend along the entire length of the rod, allowing for the attachment of nuts and other threaded components at both ends.

Scope of use

Threaded rods, also known as allthread, have a wide scope of use across various industries due to their versatility and strength. They are commonly used for:

Foundation Bolts: As a replacement for long bolts, as well as for concrete anchors and foundation bolts.

Structural Engineering: In the structural engineering industry for various applications.

Building and Maintenance: Within building, maintenance, and plumbing applications to stabilize objects made from wood, metal, or other materials.

Electrical Installations: For suspended electrical installations like lighting fixtures and cable trays.

Supporting Systems: Supporting pipes, conduits, and HVAC equipment.

Furniture Assembly: Assembling furniture and equipment that require secure connections.

Pipe Flange Connections: Used for pipe flange connections4. Pole Line Industry: As double arming bolts in the pole line industry.

Threaded rods can be coupled with other fasteners to extend their length and can be used with nuts and other fixings to be screwed onto the rod with ease. They are a practical choice for applications that require a strong, stable, and adjustable connection.

Conditions of use

The conditions of use for threaded rod, also known as allthread, are determined by the specific application and environment in which they are used. Here are some general guidelines and considerations:

Material Selection: Choose the appropriate material for the threaded rod based on the environmental conditions. For example, Grade 316 stainless steel is resistant to corrosion and is suitable for outdoor use and marine environments.

Load Capacity: Ensure that the threaded rod has the correct load capacity for the intended use. Different sizes and materials have varying load capacities.

Installation: Threaded rods may have a drive slot at one end for easier installation, although most do not feature a head like bolts and screws do.

Corrosive Conditions: In industries where corrosive conditions are an issue, such as plant maintenance or marine applications, it's important to use materials that can withstand high levels of humidity.

Cutting and Chamfering: Threaded rods are typically cut to length on a bandsaw, leaving a flat surface for applying a chamfer and stamping the rod with the appropriate grade symbol and manufacturer's identifier.

Coating: Many jobs require the rods to be hot-dip galvanized or otherwise coated to protect against corrosion and extend their lifespan.

It's crucial to follow the manufacturer's specifications and any relevant industry standards when using threaded rods to ensure safety and effectiveness in their application.

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

B1 Structure: Threaded rods must be designed by a professional, such as a structural engineer or architect, to ensure compliance with standards like NZS 3603, AS/NZS 1720, and NZS 3404 Parts 1 and 2:1997. The design data should be used to meet the provisions stipulated in these standards.

B2 Durability: The selection of the appropriate coating or material for the threaded rod is crucial for compliance with B2 Durability. This includes choosing the right finish based on the required durability and environmental conditions where the product will be used. The decision should be made by the designer.

F2 Hazardous Building Materials: Threaded rods should be safe to handle and not contain or emit harmful materials. They should comply with Acceptable Solution F2/AS1, First Edition Amendment 3, 2017, which means they do not require additional requirements to meet this clause.

Supporting documentation

The following additional documentation supports the above statements:

None added

For further information supporting Threaded Rod / Allthread claims refer to our website.

Contact details

Manufacture location	Overseas
Legal and trading name of manufacturer	N/A
Legal and trading name of importer	Wurth New Zealand Ltd
Importer address for service	99 McLaughlins Road, Wiri Auckland 2104
Importer website	wurth.co.nz
Importer NZBN	9429039489333
Importer email	sales@wurth.co.nz
Importer phone number	0800683040

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.