

# New and revised codes and standards

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**BRITISH STANDARDS PUBLISHED**

**BS 4483:2025**

Steel fabric for the reinforcement of concrete. Specification.

**BS EN 10025-3:2019**

Hot rolled products of structural steels. Technical delivery conditions for normalized/normalized rolled weldable fine grain structural steels.

**BS EN 10163-1:2004**

Delivery requirements for surface condition of hot-rolled steel plates, wide flats and sections. General requirements.

**BS EN 10163-2:2004**

Delivery requirements for surface condition of hot-rolled steel plates, wide flats and sections. Plate and wide flats.

**BS EN 10163-3:2004**

Delivery requirements for surface condition of hot-rolled steel plates, wide flats and sections. Sections.

**BS EN 10343:2009**

Steels for quenching and tempering for construction purposes. Technical delivery conditions.

**BRITISH STANDARDS REVIEWED AND CONFIRMED**

**PD CEN/TR 17231:2018**

Eurocode 1: Actions on Structures. Traffic Loads on Bridges. Track-Bridge Interaction.

**BS EN PUBLICATIONS**

**BS EN 1993-1-7:2025**

Eurocode 3. Design of steel structures. Plate assemblies with elements under transverse loads. *supersedes BS EN 1993-1-7:2007*

**BS EN 1997-3:2025**

Eurocode 7. Geotechnical design. Geotechnical structures. *supersedes BS EN 1997-1:2004+A1:2013, BS EN 1997-2:2007*

**BS EN ISO 26304:2025**

Welding consumables. Solid wire electrodes, tubular cored electrodes and electrode-flux combinations for submerged arc welding of high strength steels. Classification. *supersedes BS EN ISO 26304:2018*

**NEW WORK STARTED**

**BS EN IEC 60974-1:2022/A13:2025**

Arc welding equipment. Welding power sources.

**EN ISO 4042:2022/A1**

Fasteners. Electroplated coating systems.

**EN 13000**

Cranes. Mobile cranes.

**EN ISO 3269**

Fasteners. Acceptance inspection.

**BRITISH STANDARDS WITHDRAWN**

**BS 4483:2005**

Steel fabric for the reinforcement of concrete. Specification. *superseded by BS 4483:2025*

**BS EN ISO 26304:2018**

Welding consumables. Solid wire electrodes, tubular cored electrodes and electrode-flux combinations for submerged arc welding of high strength steels. Classification (ISO 26304:2017). *superseded by BS EN ISO 26304:2025*

**DRAFT BRITISH STANDARDS FOR PUBLIC COMMENT**

**25/30493448 DC**

BS EN 18177 Circular economy in the construction sector. Framework, principles, and definitions.

**25/30467673 DC**

BS EN ISO/IEC 17024 Conformity assessment. General requirements for bodies operating certification of persons.

**25/30479435 DC**

BS EN ISO 14025 Environmental statements and programmes for products. Environmental product declarations (EPDs).

**ISO PUBLICATIONS**

**ISO 17635:2025**

Non-destructive testing of welds. General rules for metallic materials.

**CEN EUROPEAN STANDARDS**

**EN 1997-3:2025**

Eurocode 7. Geotechnical design. Geotechnical structures.

**EN ISO 17633:2025**

Welding consumables. Tubular cored electrodes and rods for gas shielded and non-gas shielded metal arc welding of stainless and heat-resisting steels. Classification.

**CENELEC PUBLICATIONS**

**EN IEC 60974-1:2022/A13:2025**

Arc welding equipment. Welding power sources.

**UPDATED BRITISH STANDARDS**

**BS EN 12999:2020+A1:2025**

Cranes. Loader cranes

## AD 544: Washers for preloaded bolting assemblies

The SCI Advisory Desk sometimes receives questions about washers for preloaded bolting assemblies. When preloaded bolts are tightened and unhardened washers are used, if the contact pressure acting on the joint is too high, the washers may indent and deform when the bolt is fully tightened. If this occurs after the tightening is completed, the bolt preload will reduce, potentially affecting the integrity of the joint<sup>1</sup>. Clause 8.2.4 of BS EN 1090-2:20182 and clause 6.3.1 of the NSSS3 require that hardened washers are to be used as follows:

- For property class 8.8 bolts a washer shall be used under the bolt head or the nut, whichever is to be rotated;
- For property class 10.9 bolts used with steel grade S235 washers shall be used under both the bolt head and the nut (it is noted that the use of

steel grade S235 is highly unusual in the UK);

- For property class 10.9 bolts used with steel grades above S235 washers shall be used under the bolt head or the nut whichever is to be rotated, unless the use of washers under both the bolt head and the nut is specified.

Hardened plain chamfered washers according to BS EN 14399-6:20154 shall be used under the heads of preloaded bolts and positioned with the chamfer towards the bolt head and towards the nut when fitted under the nut. Hardened plain (unchamfered) washers according to BS EN 14399-5:20155 shall only be used under nuts (because of the corner radius between the bolt shank and head).

Both BS EN 14399-5:2015 and BS EN 14399-6:2015 note that washers according to those standards are not intended to be used in direct contact with oversized or slotted holes. As

explained in AD 522, plate washers shall be used for connections with slotted and oversized holes. Hardened washers (as described above) are required on top of the plate washer.

- 1 *Joint Bearing Pressure and the Use of Unsuitable Washers*, Bolt Science, October 2024
- 2 *BS EN 1090-2:2018 Execution of steel structures and aluminium structures*, BSI
- 3 *National Structural Steelwork Specification for Building Construction 7th Edition*, BCSA
- 4 *BS EN 14399-6 High-strength structural bolting assemblies for preloading - Plain chamfered washers*, BSI
- 5 *BS EN 14399-5 High-strength structural bolting assemblies for preloading - Plain washers*, BSI

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