New and revised codes and standards

From BSI Updates April 2023

BS EN PUBLICATIONS

BS EN ISO 15610:2023
Specification and qualification of welding procedures for metallic materials. Qualification based on tested welding consumables
supersedes BS EN ISO 15610:2003

BS EN ISO 5817:2023
Welding. Fusion-welded joints in steel, nickel, titanium and their alloys (beam welding excluded). Quality levels for imperfections
supersedes BS EN ISO 5817:2014

BS IMPLEMENTATIONS

BS ISO 4998:2023
Steel sheet, zinc-coated and zinc-iron alloy-coated by the continuous hot-dip process, of structural quality
supersedes BS ISO 4998:2014

BS ISO 13521:2023
Austenitic manganese steel castings
supersedes BS ISO 13521:2015

BRITISH STANDARDS REVIEWED AND CONFIRMED

BS EN ISO 2400:2012
Non-destructive testing. Ultrasonic testing. Specification for calibration block No. 1

BS EN ISO 9017:2018
Destructive tests on welds in metallic materials. Fracture test

BS EN ISO 16371-2:2017
Non-destructive testing. Industrial computed radiography with storage phosphor imaging plates. General principles for testing of metallic materials using X-rays and gamma rays

BS EN ISO 16809:2019
Non-destructive testing. Ultrasonic thickness measurement

BS ISO 16162:2012
Cold-rolled steel sheet products. Dimensional and shape tolerances

BS ISO 16163:2012
Continuously hot-dipped coated steel sheet products. Dimensional and shape tolerances

NEW WORK STARTED

EN ISO 10882-2
Health and safety in welding and allied processes. Sampling of airborne particles and gases in the operator's breathing zone. Sampling of gases
will supersede BS EN ISO 10882-2:2000

DRAFT BRITISH STANDARDS FOR PUBLIC COMMENT – ADOPTIONS

23/30397900 DC
BS EN 1993-1-10 Eurocode 3. Design of steel structures. Material toughness and through-thickness properties
Comments for the above document were required by 23 April, 2023

23/30397909 DC
BS EN 1993-1-9 Eurocode 3. Design of steel structures. Fatigue
Comments for the above document were required by 23 April, 2023

23/30397915 DC
BS EN 1993-1-4 Eurocode 3. Design of steel structures. Stainless steel structures
Comments for the above document were required by 23 April, 2023

23/30443611 DC
BS EN 1993-1-6 Eurocode 3. Design of steel structures. Strength and Stability of Shell Structures
Comments for the above document were required by 23 April, 2023

23/30443614 DC
BS EN 1993-1-7 Eurocode 3. Design of steel structure. Plate assemblies with elements under transverse loads
Comments for the above document were required by 23 April, 2023

23/30455835 DC
BS EN 1991-1-1 Eurocode 1. Actions on structures. General actions. Specific weight of materials, self-weight of construction works and imposed loads for buildings
Comments for the above document were required by 23 April, 2023

23/30455838 DC
BS EN 1991-1-3 Eurocode 1. Actions on structures. Snow loads
Comments for the above document were required by 23 April, 2023

23/30457255 DC
BS EN 1991-1-9 Eurocode 1. Actions on structures. General actions. Atmospheric icing
Comments for the above document were required by 23 April, 2023

23/30457273 DC
BS EN 1991-1-5 Eurocode 1. Actions on structures. Thermal actions
Comments for the above document were required by 23 April, 2023

23/30458281 DC
BS EN 1998-2 Eurocode 8. Design of structures for earthquake resistance. Bridges
Comments for the above document were required by 23 April, 2023

AD 507: Galvanizing steel of grade S460M

SCI has recently been asked whether the heating of thermomechanical rolled steel of grade S460M when subject to hot-dip galvanizing will affect the properties of the material. This Note addresses this issue in the context of the production and galvanizing processes.

The product standard for structural steel of grade S460M is BS EN 10025-4:2019. Part 4 is titled Technical delivery conditions for thermomechanical rolled fine grain structural steels.

The production process involves a rolling finish temperature of 700°C, lower than the typical rolling finish temperature of 750°C. The lower temperature requires a greater force to roll the material. The process produces a fine grain structure and a tough material which is designated by the letter M. The properties are retained unless the material is reheated above 650°C[1].

Hot-dip galvanizing involves dipping the steel in a bath of molten zinc that commonly has a temperature of about 450°C[2]. The immersion time is typically 4 to 5 minutes but can be longer in certain circumstances. The temperature of the galvanizing bath is therefore below that at which the properties of the steel would be affected.

Galvanizing steels with a yield strength above 650 MPa and steels of high hardness is addressed in SCI Publication P432[3].

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1 https://www.steelconstruction.info/Steel_material_properties
2 *The Engineers & Architects' Guide: Hot Dip Galvanizing*, The Galvanizers Association. https://www.galvanizing.org.uk/publications/
3 Baddoo, N, Chen A, *High strength steel design and execution guide*, (P432), SCI, 2020