Comparison of BS and BS EN for steel materials

Appendix

This table only highlights the comparison of BS and BS EN on steel materials, which are relevant to plan approval.

Title of BS	BS	BS EN/other standards	Title of BS EN/other	Difference btn BS/BS EN and	Status
			standards	remarks relevant to structural	
				plan processing	
Specification for	BS 4360: 1986	BS EN 10025: 1-5: 2004	Hot rolled products of		Approval
weldable structural	(Superseded,		structural steels		related
steels	Withdrawn)				
		BS EN 10025-1 : 2004	Part 1:General technical		
		(Current)	delivery conditions		
		BS EN 10025-2 : 2004	Part 2: Technical		
		(withdrawn)	delivery conditions for		
		replaced by	non-alloy structural		
			steels		
		BS EN 10025-2 : 2019	Part 2: Technical		
		(Current)	delivery conditions for		
			non-alloy structural		
			steels		
		BS EN 10025-3 : 2004	Part 3: Technical		
		(withdrawn)	delivery conditions for		
		replaced by	normalized/normalized		
			rolled weldable fine		
			grain structural steels		

	Part 3: Technical
(Current)	delivery conditions for
	normalized/normalized
	rolled weldable fine
	grain structural steels
BS EN 10025-4 : 2004	Part 4: Technical
(withdrawn)	delivery conditions for
replaced by	thermomechanical
	rolled weldable fine
	grain structural steels
BS EN 10025-4 : 2019	Part 4: Technical
(Current)	delivery conditions for
	thermomechanical
	rolled weldable fine
	grain structural steels
BS EN 10025-5 : 2004	Part 5: Technical
(withdrawn)	delivery conditions for
replaced by	structural steels with
replaced by	improved atmospheric
	corrosion resistance.
	Controlled resistance.
BS EN 10025-5 : 2019	Part 5: Technical
(Current)	delivery conditions for
(Current)	delivery conditions for

	structural steels with
	improved atmospheric
	corrosion resistance
BS EN 10025-6 : 2004	Part 6: Technical
+A1:2009	delivery conditions for
(withdrawn)	flat products of high
replaced by	yield strength structural
	steels in the quenched
	and tempered condition
BS EN 10025-6 : 2019	Part 6: Technical
(Current)	delivery conditions for
	flat products of high
	yield strength structural
	steels in the quenched
	and tempered condition
BS EN 10210-1: 2006	Hot finished structural
(Current)	hollow sections of
	non-alloy and fine grain
	structural steels
	Part 1: Technical
	delivery requirements
BS EN 10164: 2004	Steel products with
	improved deformation
	properties perpendicular

	to the surface of the
	product – Technical
	delivery conditions
BS EN 10164: 2018	Steel products with
(Current)	improved deformation
	properties perpendicular
	to the surface of the
	product – Technical
	delivery conditions
BS EN 10219-1: 2006	Cold formed welded
(Current)	structural hollow
	sections of non-alloy
	and fine grain steels
	Part 1: Technical
	delivery requirements

Comparison of BS and BS EN for DT of steel materials

This table only highlights the comparison of BS and BS EN on Destructive Testing of steel materials, which are relevant to plan approval.

Title of BS	BS	BS EN/other standards	Title of BS EN/other	Difference btn BS/BS EN and	Status
			standards	remarks relevant to structural plan	
				processing	
Method for tensile	BS 18:1987	BS EN 10002-1:2001	Tensile testing of		Approval
testing of metals	(Superseded,	(withdrawn)	metallic materials.		related
(including aerospace	Withdrawn)		Part 1: Method of test at		
materials)		and	ambient temperature		
		ISO 6892: 1998	Metallic materials –		
		(withdrawn)	Tensile testing at		
		both standard are replaced			
		by			
		BS EN ISO 6892-1: 2009	Metallic materials –		
		(withdrawn)	Tensile testing		
		replaced by	Part 1: Method of test at		
			ambient temperature		
		BS EN ISO 6892-1: 2016	Metallic materials –		
		(withdrawn)	Tensile testing		
		replaced by	Part 1: Method of test at		
			room temperature (ISO		
			6892 -1: 2016)		

		BS EN ISO 6892-1: 2019 (Current)	Metallic materials – Tensile testing Part 1: Method of test at room temperature	
Methods for notched bar tests. Part 2: The Charpy V-notch impact test on metals	BS 131-2:1972 (Superseded, Withdrawn)	BS EN 10045-1: 1990 (Superseded, Withdrawn) Replaced by	Charpy impact test on metallic materials. Part 1: Test method (V-and U-notches)	Low priority
		BS EN ISO 148-1: 2010 (withdrawn) Replaced by	Metallic materials – Charpy pendulum impact test. Part 1: Test method	
		BS EN ISO 148-1: 2016 (Current)	Metallic materials – Charpy pendulum impact test. Part 1: Test method (ISO148-1: 2016)	
Method for Brinell hardness test and for verification of Brinell hardness testing machines	BS 240: 1986 (Superseded, Withdrawn)	BS EN ISO 6506: 1-3: 2005 (Revised,Withdrawn) Replaced by	Metallic materials. Brinell hardness test. Part 1: Test method.	Low priority

			Part 2: Verification and	
			calibration of testing	
			machines	
			macinies	
			Part 3: Calibration of	
			reference blocks	
			Toronec blocks	
		BS EN ISO 6506 -1: 2014	Metallic materials	
		BS EN ISO 6506 -3: 2014		
		DS EN 150 0500 -5. 2014	Difficil flardicss test.	
		Part 1 and 3	Part 1: Test method.	
		(Current)	Tart 1. Test method.	
		(Current)	Part 2: Verification and	
		Dout 2 (ith dua and		
		Part 2 (withdrawn and	calibration of testing	
		replaced by	machines	
			D 4 2 C 1'1 4' C	
			Part 3: Calibration of	
			reference blocks	
		BS EN ISO 6506-2: 2018		
			calibration of testing	
			machines	
Method for Vickers	BS 427:1990	BS EN ISO 6507 1-3:	Metallic materials.	Low
hardness test and for	(Superseded,	2005	Vickers hardness test.	priority
verification of Vickers	Withdrawn)	(Revised, Withdrawn)	Part 1: Test method.	

hardness testing	Replaced by		
machines		Part 2: Verification and	
		calibration of testing	
		machines	
		Part 3: Calibration of	
		reference blocks	
	BS EN ISO 6507 1-3 :	Metallic materials.	
	2018	Vickers hardness test.	
	(Current)	Part 1: Test method.	
		Part 2: Verification and	
		calibration of testing	
		machines	
		Part 3: Calibration of	
		reference blocks	

Comparison of BS and BS EN for Dimensional Tolerances

This table only highlights the comparison of BS and BS EN on dimensional tolerances of steel products, which are relevant to plan approval.

Title of BS	BS	BS EN/other standards	Title of BS EN/other	Difference btn BS/BS EN and	Status
			standards	remarks relevant to structural plan	
				processing	
Structural steel sections	BS 4-1: 2005	Replaced by			Low
Part 1: Specification for	(Superseded,	BS EN 10365 : 2017	Hot rolled steel		priority
hot rolled sections	Withdrawn)	(current)	channels, I and H		
			sections.		
			Dimension and masses		
	-	BS EN 10024: 1995	Hot rolled taper flange I		Low
		(Current)	sections. Tolerances on		priority
			shape and dimensions.		
Weldable structural	BS 4360:1990	BS EN 10029: 1991	Specification for		Low
steels	(Superseded,	(Revised, Withdrawn)	tolerances on		priority
	Withdrawn)	(======================================	dimensions, shape and		P
	,		mass for hot rolled steel		
			plates 3 mm thick or		
			above		
		BS EN 10029: 2010	Hot-rolled steel plates 3		
		(Current)	mm thick or above.		
		(Carrent)	Tolerances on		
			dimensions and shape		
Structural steel sections	BS 4-1: 1980	BS EN 10034: 1993	Structural Steel I and H		Low
Part 1: Specification for	(Superseded,	(Current)	sections. Tolerances on		priority
hot rolled sections	Withdrawn)		shape and dimensions.		. ,

	-	BS EN 10055: 1996	Hot rolled steel equal	Low
		(Current)	flange tees with	priority
			radiused root and toes.	
			Dimensions and	
			tolerances on shape and	
			dimensions.	
Hot rolled structural	BS 4848-4:1972	BS EN 10056-1: 1999	Specification for	Low
steel sections	(Superseded,	(Withdrawn)	structural steel equal	priority
Part 4: Equal and	Withdrawn)	Replaced by	and unequal angles. Part	
unequal angles			1: Dimensions.	
		DG EN 1005(1 2017	G 'C' '. C	
		BS EN 10056-1: 2017	Specification for	
		(Current)	structural steel equal	
			and unequal angles. Part 1: Dimensions.	
			Tart 1. Difficusions.	
		BS EN 10056-2: 1993	Specification for	
		(Current)	structural steel equal	
			and unequal angles. Part	
			2: Tolerances on shape	
			and dimensions.	
Hot rolled structural	BS 4848-2: 1991	BS EN 10210-2: 1997	Hot finished structural	Approval
steel sections	(Superseded,	(withdrawn)	hollow sections of	related

Part 2: Specification for	Withdrawn)		non-alloy and fine grain	
hot-finished hollow			structural steels.	
sections		BS EN 10210-2: 2006	Part 2: Tolerances,	
		(Revised, Withdrawn)	dimensions and	
			sectional properties.	
		Replaced by		
		BS EN 10210-2: 2019	Hot finished structural	
		(current)	hollow sections of	
			non-alloy and fine grain	
			structural steels.	
			Part 2: Tolerances,	
			dimensions and	
			sectional properties.	
	-	BS EN 10279:2000	Hot rolled steel	Low
		(Current)	channels. Tolerances on	priority
			shape, dimension and	
			mass.	
Specification for	BS 6363:1983	BS EN 10219-2: 1997	Cold formed welded	Approval
welded cold formed	(Superseded,	withdrawn)	structural sections of	related
steel structural hollow	Withdrawn)		non-alloy and fine grain	
sections			steels.	
		BS EN 10219-2: 2006	Part 2: Tolerances,	
		(Revised, Withdrawn)	dimensions and	
			sectional properties.	
		Replaced by	Cold formed welded	
		BS EN 10219-2: 2019	structural sections of	

	(current)	non-alloy and fine grain	
		steels.	
		Part 2: Tolerances,	
		dimensions and	
		sectional properties.	

Comparison of BS and BS EN on Corrosion Protection

This table only highlights the comparison of BS and BS EN on Corrosion Protection of steel, which are relevant to plan approval.

Title of BS	BS	BS EN/other	Title of BS EN/other	Difference btn BS/BS EN and	Status
		standards	standards	remarks relevant to structural plan	
				processing	
	-	BS EN ISO	Preparation of steel		Low
		11124-1:1997	substrates before		priority
		(Revised, Withdrawn)	application of paints and		
		Replaced by	related products.		
			Specifications for metallic		
			blast-cleaning abrasives.		
			Part 1: General		
			introduction and		
			classification.		
		BS EN ISO	Preparation of steel		
		11124-1:2018	substrates before		
		(Current)	application of paints and		
			related products.		
			Specifications for metallic		
			blast-cleaning abrasives.		
			Part 1: General		
			introduction and		
			classification		
	-	BS EN ISO	Preparation of steel		Low
		11124-2:1997	substrates before		priority
		(Revised, Withdrawn)	application of paints and		
		Replaced by	related products.		

			Specifications for metallic blast-cleaning abrasives. Part 2: Chilled iron.	
		BS EN ISO 11124-2:2018	Preparation of steel substrates before	
		(Current)	application of paints and	
		(Current)	related products.	
			Specifications for metallic	
			blast-cleaning abrasives.	
			Part 2: Chilled iron.	
Specification for chilled	BS 2451: 1963	BS EN ISO 11124-3:	Preparation of steel	Low
iron shot and grit	(Superseded,	1997	substrates before	priority
	Withdrawn)	(Revised, Withdrawn)	application of paints and	
		Replaced by	related products.	
			Specifications for metallic	
			blast-cleaning abrasives.	
			Part 3: High carbon	
			cast-steel shot and grit.	
		BS EN ISO	Preparation of steel	
		11124-3:2018	substrates before	
		(Current)	application of paints and	
			related products.	
			Specifications for metallic	
			blast-cleaning abrasives.	
			Part 3: High carbon	
			cast-steel shot and grit.	

		BS EN ISO 11124-4:	Preparation of steel	Low
		1997	substrates before	priority
		(Revised, Withdrawn)	application of paints and	
		Replaced by	related products.	
		•	Specifications for metallic	
			blast-cleaning abrasives.	
			Part 4: Low carbon	
			cast-steel shot.	
		BS EN ISO	Preparation of steel	
		11124-4:2018	substrates before	
		(Current)	application of paints and	
		, ,	related products.	
			Specifications for metallic	
			blast-cleaning abrasives.	
			Part 4: Low carbon	
			cast-steel shot.	
Specification for	BS 4921: 1973	BS 4921: 1988	Specification for	Low
sheradized coatings on	(Withdrawn,	(Current)	sherardized coatings on	priority
iron and steel articles	superseded)		iron and steel.	
Specification for	BS 4652: 1971	BS 4652: 1995	Specification for zinc-rich	Low
metallic zinc-rich	(Withdrawn,	(Current)	priming paint (organic	priority
priming paint (organic	superseded)		media)	
media)				
Specification for	BS 2569-1: 1964	BS EN 22063: 1994	Metallic and other	Low
sprayed metal coatings.	(Withdrawn,	(Superseded,	inorganic coatings.	priority
Part 1: Protection of	superseded)	Withdrawn) by	Thermal spraying. Zinc,	

iron and steel by		aluminium and their	
aluminium and zinc		alloys.	
against atmospheric			
corrosion	BS EN ISO 2063: 2005	Thermal spraying	
Collosion		Metallic and other	
	Replaced by	inorganic coatings. Zinc,	
	Keplaced by		
		aluminium and their	
		alloys.	
	BS EN ISO 2063 part 1	Thermal spraying – Zinc,	
	& 2 : 2017	aluminium and their	
	(Current)	alloys.	
	BS EN ISO 2063	Part 1 : Design	
	part 1: 2017	considerations and quality	
		requirements for corrosion	
	Replaced by	protection systems [ISO	
		2063-1 : 2017]	
		Part 2 : Execution of	
		corrosion protection	
		systems [ISO 2063-2 :	
		2017]	
	BS EN ISO 2063	Thermal spraying – Zinc,	
	part 1: 2019	aluminium and their	
	(Current)	alloys.	
		Part 1 : Design	
		considerations and quality	

			requirements for corrosion protection systems [ISO 2063-1:2019]	
Specification for	BS 729 : 1971	BS EN ISO 1461: 1999	Hot-dip galvanized	Approval
hot-dip galvanized	(Superseded,	(Withdrawn)	coatings on fabricated iron	related
coatings on iron and	Withdrawn)		and steel articles.	
steel articles			Specifications and test	
			methods.	
		BS EN ISO 1461: 2009	Hot-dip galvanized	
		(Current)	coatings on fabricated iron	
			and steel articles.	
			Specifications and test	
			methods. (ISO 1461:	
			2009)	

Comparison of BS and BS EN for Welding consumables

This table only highlights the comparison of BS and BS EN on welding consumables, which are relevant to plan approval.

Title of BS	BS	BS EN/other standards	Title of BS EN/other	Difference btn BS/BS EN and	Status
			standards	remarks relevant to structural plan	
				processing	
Covered carbon and	BS 639:1986	BS EN 499: 1995	Welding consumables-		Approval
carbon manganese steel	(Superseded,	(Superseded, Withdrawn)	Covered electrodes for		related
electrodes for manual	Withdrawn)	by	manual metal arc welding		
metal-arc welding			of non-alloy and fine grain		
			steels – Classification		
		BS EN ISO 2560: 2005			
		(withdrawn)			
		replaced by			
		BS EN ISO 2560 : 2009	Welding consumables-		
		(withdrawn)	Covered electrodes for		
		replaced by	manual metal arc welding		
			of non-alloy and fine		
			grain steels –		
			Classification		
		BS EN ISO 2560 : 2020	Welding consumables-		
		(Current)	Covered electrodes for		
			manual metal arc welding		
			of non-alloy and fine		
			grain steels -		
			Classification		

Filler rods and wires for	BS 2901-1: 1983	BS EN 440: 1995	Welding consumables-	Low
gas-shielded arc	(Superseded,	(withdrawn)	Wire electrodes and	priority
welding.	Withdrawn)		deposits for gas shielded	
Part 1: Ferritic steels		Replaced by	metal arc welding of	
		BS EN ISO 14341: 2008	non-alloy and fine grain	
		(Revised, Withdrawn)	steels – Classification.	
		BS EN ISO 14341: 2011	Welding consumables.	
		(withdrawn)	Wire electrodes and weld	
		replaced by	deposits for gas shielded	
			metal arc welding of non	
			alloy and fine grain	
			steels. Classification	
		BS EN ISO 14341: 2020	Welding consumables.	
		(Current)	Wire electrodes and weld	
			deposits for gas shielded	
			metal arc welding of non	
			alloy and fine grain	
			steels. Classification	
Specification for	BS 4165: 1984	BS EN 756: 2004	Welding consumables-	Low
electrode wires and	(Superseded,	(Superseded, Withdrawn)	Solid wires, solid	priority
fluxes for the	Withdrawn)		wire-flux and tubular	
submerged arc welding		Replaced by	cored electrode-flux	
of carbon steel and			combinations for	
medium-tensile steel			submerged arc welding of	
			non-alloy and fine grain	
			steels – Classification	

		BS EN ISO 14171: 2010	Welding consumables –	
			Solid wire electrodes,	
		,	tubular cored electrodes	
			and electrode/flux	
			combinations for	
			submerged arc welding of	
			non alloy and fine grain	
			steels – Classification	
			steers – Classification	
		BS EN ISO 14171: 2016	Welding consumables –	
		(Current)	Solid wire electrodes,	
			tubular cored electrodes	
			and electrode/flux	
			combinations for	
			submerged arc welding of	
			non alloy and fine grain	
			steels – Classification	
			(ISO 14171 : 2016)	
Specification for carbon	BS 7084: 1989	BS EN 758: 1997	Welding consumables-	Low
and carbon-manganese	(Revised, Withdrawn)	(Superseded, Withdrawn)	Tubular cored electrodes	priority
steel tubular cored			for metal arc welding	
welding electrodes		Replaced by	with and without a gas	
			shield of non-alloy and	
			fine grain steels –	
			Classification	

BS EN ISO 17632 : 2008	Welding consumables-	
(withdrawn)	Tubular cored electrodes	
replaced by	for gas shielded and	
	non-gas shielded metal	
	arc welding of non-alloy	
	and fine grain steels –	
	Classification"	
BS EN ISO 17632 : 2015	Welding consumables-	
(Current)	Tubular cored electrodes	
	for gas shielded and	
	non-gas shielded metal	
	arc welding of non-alloy	
	and fine grain steels –	
	Classification"	

Comparison of BS and BS EN for Welding Standard, Procedure, Coordination and Welder

This table only highlights the comparison of BS and BS EN on Welding Standard, Procedure, Coordination and Welder, which are relevant to plan approval.

Title of BS	BS	BS EN/other	Title of BS EN/other	Difference btn BS/BS EN and	Status
		standards	standards	remarks relevant to structural plan	
				processing	
Specification for arc	BS 5135:1984	BS EN 1011-1:1998	Welding.		Approval
welding of carbon and	(Superseded,	(Revised, Withdrawn)	Recommendations for		related
carbon manganese	Withdrawn)		welding of metallic		
steels		Replaced by	materials. General		
			guidance for arc welding		
		BS EN 1011-1: 2009	Welding.		
		(Current)	Recommendations for		
		(Current)	welding of metallic		
			materials. General		
			guidance for arc welding		
		BS EN 1011-2:2001	Welding.		
		(Current)	Recommendations for		
			welding of metallic		
			materials. Arc welding of		
			ferritic steels		
Specification for	BS 4870-1:1981	BS EN ISO 15614-1:	Specification and		Approval
approval testing of	(Superseded,	2004 (+ A1 : 2008 /	qualification of welding		related
welding procedures.	Withdrawn)	+A2:2012)	procedures for metallic		

Part 1: Fusion welding	(withdrawn)	materials. Welding	
of steel.	replaced by	procedure test.	
		Part 1: Arc and gas	
		welding of steels and arc	
		welding of nickel and	
		nickel alloys	
	BS EN ISO 15614	-1: Specification and	
	2017	qualification of welding	
	(withdrawn)	procedures for metallic	
	replaced by	materials. Welding	
		procedure test.	
		Part 1: Arc and gas	
		welding of steels and arc	
		welding of nickel and	
		nickel alloys	
		·	
	BS EN ISO 15614	-1: Specification and	
	2017 (+A1 : 2019	qualification of welding	
	(Current)	procedures for metallic	
		materials. Welding	
		procedure test.	
		Part 1: Arc and gas	
		welding of steels and arc	
		welding of nickel and	
		nickel alloys	

Part 3: Arc welding of	BS 4870-3:1985	BS EN ISO 15614-8:2002	Specification and	Approval
tube to tube-plate joints	(Superseded,	(withdrawn)	qualification of welding	related
in metallic materials	Withdrawn)	replaced by	procedures for metallic	
			materials – welding	
			procedure test	
			Part 8: Welding of tubes to	
			tube-plate joints	
		BS EN ISO 15614-8:2016	•	
		(Current)	qualification of welding	
			procedures for metallic	
			materials – welding	
			procedure test	
			Part 8: Welding of tubes to	
			tube-plate joints	
			(ISO 15614-8 : 2016)	
Part 4: Specification for	BS 4870-4:1988	BS EN 1418: 1998	Welding personnel.	Approval
automatic fusion	(Superseded,	(Superseded,	Approval testing of	related
welding of metallic	Withdrawn)	Withdrawn)	welding operators for	
materials, including			fusion welding and	
welding operator		Replaced by	resistance weld setters for	
approval			fully mechanized and	
			automatic welding of	
			metallic materials.	

-	BS EN ISO 14732 : 2013 (Current) BS EN 719: 1994	Welding personnel. Qualification testing of welding operators and weld setters for mechanized and automatic welding of metallic materials. Welding co-ordination.	
	(Superseded, Withdrawn) BS EN ISO 14731: 2006 (withdrawn) replaced by	Tasks and responsibilities Welding co-ordination. Tasks and responsibilities	Approval related
	BS EN ISO 14731 : 2019 (Current)	Welding co-ordination. Tasks and responsibilities	
-	BS EN 729-2: 1995 (Superseded, Withdrawn) Replaced by	Quality requirements for welding. Fusion welding of metallic materials. Comprehensive quality	Low priority

	BS EN ISO 3834-2: 2005 (Current)	requirements. Quality requirements for fusion welding of metallic materials. Part 2: Comprehensive quality requirements.	
-	BS EN 729-3: 1995 (Superseded, Withdrawn) by	Quality requirements for welding. Fusion welding of metallic materials. Part 3: Standard quality requirements.	Low priority
	BS EN ISO 3834-3:2005 (Current)	Quality requirements for fusion welding of metallic materials. Part 3: Standard quality requirements	
-	BS EN 729-4:1995 (Superseded, Withdrawn) by	Quality requirements for welding. Fusion welding of metallic materials. Part 4: Elementary quality requirements.	Low priority

		BS EN ISO 3834-4:2005 (Current)	Quality requirements for fusion welding of metallic materials. Part 4: Elementary quality requirements	
Specification for approval testing of welders to approved welding procedures. Fusion welding of steel	BS 4871-1:1982 (Superseded, Withdrawn)	BS EN 287-1:2004 (Superseded, Withdrawn)	Qualification test of welders. Fusion welding. Part 1: Steels	Approval related
		BS EN 287-1:2011 (Superseded, Withdrawn at year 2013)	Qualification test of welders. Fusion welding. Part 1: Steels	
		Replaced by BS EN ISO 9606-1: 2013 (Revised,Withdrawn) Replaced by	Qualification testing of welders Fusion welding. Part 1: Steels	

		BS EN ISO 9606-1 : 2017 (Current)	Qualification testing of welders Fusion welding. Part 1: Steels	
Specification for	BS 4871-3:1985			Low
approval testing of	(Withdrawn)			priority
welders to approved				
welding procedures.	(No new version)			
Part 3: Arc welding of				
tube to tube-plate joints				
in metallic materials				
Specification for	BS 4872-1: 1982			Low
approval testing of	(Current)			priority
welders when welding				
procedure approval is				
not required				
Part 1: Fusion welding				
of steel				
Specification for a		ISO / TR 15608 : 2017	Welding –Guideline for a	Low
metallic material		(Current)	metallic material grouping	priority
grouping systems			systems	
Specification for a		ISO / TR 20172 : 2009	Welding - grouping	Low
metallic material		(Current)	systems for materials –	priority
grouping systems			European materials	
Specification for a		ISO / TR 20173 : 2018	Welding - grouping	Low
metallic material		(Current)	systems for materials –	priority
grouping systems			American materials	

Specification for a	ISO / TR 20174 : 2020	Welding - grouping	Low
metallic material	(Current)	systems for materials –	priority
grouping systems		Japanese materials	

Comparison of BS and BS EN for DT of welds

This table only highlights the comparison of BS and BS EN on Destructive Testing of welds, which are relevant to plan approval.

Title of BS	BS	BS EN/other standards	Title of BS EN/other standards	Difference btn BS/BS EN and remarks relevant to structural plan processing	Status
Methods of destructive	BS 709:1983	BS EN 875: 1995	Destructive tests on welds		Low
testing, fusion welded	(Superseded,	(Superseded,	in metallic materials.		priority
joints and weld metal in	Withdrawn)	Withdrawn)	Impact tests. Test specimen		
steel		Replaced by	location, notch orientation		
			and examination.		
		BS EN ISO 9016: 2011	Destructive tests on welds		
		(Superseded,	in metallic materials.		
		Withdrawn)	Impact tests. Test specimen		
		Replaced by	location, notch orientation		
			and examination		
			Destructive tests on welds		
		(Current)	in metallic materials.		
			Impact tests. Test specimen		
			location, notch orientation		
			and examination		
			(ISO9016: 2012)		
		BS EN 876: 1995	Destructive tests on welds		Low
		(Superseded,	in metallic materials.		priority
		Withdrawn)	Longitudinal tensile test on		

Replaced by	weld metal in fusion	
	welded joints.	
BS EN ISO 5178: 2011	Destructive tests on welds	
(Superseded,	in metallic materials.	
Withdrawn)	Longitudinal tensile test on	
	weld metal in fusion	
	welded joints	
Replaced by		
BS EN ISO 5178: 2019	Destructive tests on welds	
(Current)	in metallic materials.	
	Longitudinal tensile test on	
	weld metal in fusion	
	welded joints	
BS EN 895: 1995	Destructive tests on welds	Low
(Superseded,	in metallic materials.	priority
Withdrawn)	Transverse tensile test.	
Replaced by		
BS EN ISO 4136: 2011	Destructive tests on welds	
(Superseded,	in metallic materials.	
Withdrawn)	Transverse tensile test	
Replaced by		
BS EN ISO 4136 : 2012	Destructive tests on welds	

(Current)	in metallic materials.	
	Transverse tensile test	
	(ISO4136: 2012)	
BS EN 910: 1996	Destructive tests on welds	Low
(Superseded,	in metallic materials. Bend	priority
Withdrawn)	tests.	
Replaced by		
BS EN ISO 5173: 2010	Destructive tests on welds	
+ A1 : 2011	in metallic materials -	
(Current)	Bend tests.	
BS EN 1043-1: 1996	Destructive tests on welds	Low
(Superseded,	in metallic materials.	priority
Withdrawn)	Hardness testing.	
	Part 1: Hardness test on arc	
	welded joints.	
Replaced by		
BS EN ISO 9015 –1:	Destructive tests on welds	
2011	in metallic materials.	
(Current)	Hardness testing.	
	Part 1: Hardness test on arc	
	welded joints.	

	BS EN 1320: 1997	Destructive test on welds		Low
	(Superseded,	in metallic materials.		priority
	Withdrawn)	Fracture tests.		1 3
	,			
	Replaced by			
		3 Destructive test on welds		
		in metallic materials		
	(Revised, Withdrawn)	Fracture tests.		
	Replaced by			
	r			
	BS EN ISO 9017 : 201	8 Destructive test on welds		
	(Current)	in metallic materials		
	, , ,	Fracture tests.		
	BS EN 1321: 1997	Destructive test on welds		Low
	(Superseded,	in metallic materials.		priority
	Withdrawn)	Macroscopic and		
		microscopic examination		
		of welds		
	Replaced by			
	BS EN ISO 17639 :	Destructive test on welds		
	2013	in metallic materials		
	(Current)	Macroscopic and		
		microscopic examination		
		of welds		
L		1	1	

Comparison of BS and BS EN for NDT of welds

This table only highlights the comparison of BS and BS EN on Non-Destructive Testing of welds, which are relevant to plan approval.

Title of BS	BS	BS EN/other standards	Title of BS EN/other standards	Difference btn BS/BS EN and remarks relevant to structural plan processing	Status
Code of practice. Visual	BS 5289:1976	BS EN 970:1997	Non-destructive		Low
inspection of fusion	(Superseded,	(Superseded,	examination of fusion		priority
welded joints.	Withdrawn)	Withdrawn)	welds – Visual		
		Replaced by	examination		
		BS EN ISO 17637:2011	Non-destructive testing		
		(withdrawn)	of welds. Visual testing		
		replaced by	of fusion-welded joints		
		BS EN ISO 17637:2016	Non-destructive testing		
		(Current)	of welds. Visual testing		
			of fusion-welded joints		
Method for penetrant	BS 6443:1984	BS EN 571-1:1997	Non-destructive		Low
flaw detection.	(Superseded,	(Superseded,	testing – Penetrant		priority
	Withdrawn)	Withdrawn)	testing		
			Part 1: General		
		Replaced by	principles		
		BS EN ISO 3452-1:	Non-destructive		
		2013	testing – Penetrant		
		(Current)	testing		
			Part 1: General		
			principles		

Method for magnetic	BS 6072:1981	BS EN 1290:1998	Non-destructive	Low
particle flaw detection	(Current, Obsolescent,	(withdrawn)	examination of welds –	priority
	Superseded)	replaced by	Magnetic particle	
			examination of welds	
		BS EN ISO 17638 :	Non-destructive testing	
		2009	of welds – Magnetic	
		(withdrawn)	particle testing	
		replaced by		
		BS EN ISO 17638 :	Non-destructive testing	
		2016	of welds – Magnetic	
		(Current)	particle testing	
			(ISO 17638 : 2016)	
		BS EN ISO	Non-destructive testing.	
		9934-1:2001	Magnetic particle	
		(Withdrawn)	testing.	
		Replaced by	Part 1: General	
			principles.	
		BS EN ISO 9934-1 : 2015	Non-destructive testing.	
		(withdrawn again)	Magnetic particle	
		replaced by	testing.	
			Part 1: General	
			Principles.	

		BS EN ISO 9934-1 : 2016	Non-destructive testing.	
		(Current)	Magnetic particle	
			testing.	
			Part 1: General	
			Principles.	
Method for ultrasonic	BS 3923-1:1986	BS EN 1714:1998	Non-destructive testing	Low
examination of welds	(Superseded,	(Superseded,	of welded joints –	priority
Part 1: Methods for	Withdrawn)	Withdrawn)	Ultrasonic testing of	
manual examination of		Replaced by	welded joints	
fusion welds in ferritic				
steels				
		BS EN ISO 17640:2010	Non-destructive testing	
		(Superseded,	of welds. Ultrasonic	
		Withdrawn)	testing. Techniques,	
		Replaced by	testing levels, and	
			assessment	
		BS EN ISO 17640:2017		
		` '	of welds. Ultrasonic	
			testing. Techniques,	
			testing levels, and	
			assessment.	

		BS EN ISO 17640:2018	Non-destructive testing	
		(Current)	of welds. Ultrasonic	
			testing. Techniques,	
			testing levels, and	
			assessment.	
Ultrasonic thickness		BS EN 14127 : 2011	Non-destructive	Low
measurement		(Superseded,	testing – Ultrasonic	priority
measurement		Withdrawn)	thickness measurement	priority
		Replaced by	unexiless measurement	
		BS EN ISO 16809 :	Non-destructive	
		2019		
			testing – Ultrasonic thickness measurement	
		(Current)		
Dodio anambio	BS 2600-1 & 2:1983	BS EN 1435:1997	[ISO 16809 : 2017] Non-destructive	Low
Radiographic				
examination of fusion	(Superseded,	(Superseded,	examination of welds.	priority
welded butt joints in	Withdrawn)	Withdrawn)	Radiographic	
steel.			examination of welded	
		5 1 11	joints.	
Part 1: Methods for		Replaced by		
steel 2 mm up to and		BS EN ISO 17636-1:	Non-destructive testing	
including 50 mm thick		2013	of welds. Radiographic	
		(Current)	testing Part 1: X and	
Part 2: Methods for			Gamma –ray techniques	
steel over 50 mm up to			with film.	
and including 200 mm				
thick				

Comparison of BS and BS EN for Fastener, Nut and Washer

This table only highlights the comparison of overdue and new standards for Fastener, Nut and Washer, which are relevant to plan approval.

Title of BS	BS	BS EN/other standards	Title of BS EN/other standards	Difference between standards and remarks relevant to structural plan processing	Status
		BS EN ISO 4014: 2001 (Revised, Withdrawn) Replaced by	Hexagon head bolts. Product grades A and B		
		BS EN ISO 4014: 2011	Hexagon head bolts.		
		(Current)	Product grades A and B		
		BS EN ISO 4016: 2001 (Revised, Withdrawn)			
		Replaced by BS EN ISO 4016: 2011			
		(Current)	Product grade C		
		BS EN ISO 4017: 2001	Hexagon head screws.		
		(Revised, Withdrawn) Replaced by	Product grades A and B		

grade	uct grades A and B
BS EN ISO 4018: 2001 Hexagorised, Withdrawn) Replaced by BS EN ISO 4018: 2011 Hexagorised (Current)	uct grade C

Comparison of BS and BS EN on Matching Bolt, Nut and Washer & HSFG Bolt

This table only highlights the comparison of BS and BS EN on Matching Bolt, Nut and Washer & HSFG Bolt

Grade	Title of BS	BS	BS EN/other	Title of BS EN/Other	Comparison btn BS/BS EN	Status
			standard	standards		
4.6		Bolt	BS EN ISO	Hexagon head		Low
	Specification for	BS 4190:2001	4018:2011	screws. Product		priority
	ISO metric black	(Withdrawn)	(Current)	grade C		
	hexagon bolts,	Replaced by				
	screws and nuts.	BS 4190 : 2014	BS EN ISO	Hexagon head bolts.		
	Metric units.	(Current)	4016:2011	Product grade C		
			(Current)			
	Specification for	BS 7419:1991				
	holding down bolts	(Withdrawn)				
		Replaced by		Specification for		
		BS 7419 : 2012		holding down bolts		
		(Current)				
		Nut	BS EN ISO	Hexagon nuts.		Low
	Specification for	BS 4190:2001	4034:2001	Product grade C		priority
	ISO metric black	(Grade 4)	(Superseded,			
	hexagon bolts,	(Withdrawn)	Withdrawn)			
	screws and nuts.	Replaced by				
	Metric units	BS 4190 : 2014				
		(Current)	Replaced by			
			BS EN ISO 4034:	Hexagon regular		
			2012	nuts (style 1).		
			(Current)	Product grades C		

		Washer	BS EN ISO	Plain washers.	Low
	Specification for	BS 4320:1968	7091:2000	Normal series.	priority
	metal washers for	(Current)	(Current)	Product grade C	
	general engineering				
	purposes. Metric				
	series.				
8.8		Bolt	BS EN ISO 4017:	Hexagon head	Low
	Specification for	BS 4190:2001	2011	screws. Product	priorit
	ISO metric black	(Withdrawn)	(Revised,	grades A and B	
	hexagon bolts,	Replaced by	Withdrawn)		
	screws and nuts.	BS 4190 : 2014	Replaced by		
		(Current)			
	Specification for	BS 7419:1991	BS EN ISO 4017:	Fasteners -	
	holding down bolts	(Withdrawn)	2014	Hexagon head	
		Replaced by	(Current)	screws. Product	
		BS 7419 : 2012		grades A and B(ISO	
		(Current)		4017 : 2014)	
			BS EN ISO	Hexagon head bolts.	
			4014:2011	Product grades A	
			(Current)	and B	

	Nut	BS EN ISO	Hexagon nuts, style	Low
Specification	n for BS 4190:2001)	4032:2001	1. Product grades A	priority
ISO metric b	olack (Grade 8)	(Superseded,	and B	
hexagon bol	ts, (Withdrawn)	Withdrawn)		
screws and r	nuts. Replaced by			
	BS 4190 : 2014			
	(Current)	Replaced by		
		BS EN ISO 4032:	Hexagon regular	
		2012	nuts (style 1).	
		(Current)	Product grades A	
			and B	
	Washer	BS EN ISO	Plain washers.	Low
Specification	n for BS 4320:1968	7091:2000	Normal series.	priority
metal washe	ers for (Current)	(Current)	Product grade C	
general engi	neering			
purposes. M	etric			
series.				

10.9		Bolt	BS EN ISO	Hexagon head	Low
	Specification for	BS 4190:2001	4017:2011	screws. Product	priority
	ISO metric black	(Withdrawn)	(Revised,	grades A and B	
	hexagon bolts,	Replaced by	Withdrawn)		
	screws and nuts.	BS 4190 : 2014	Replaced by		
		(Current)			
			BS EN ISO 4017:	Fasteners -	
			2014	Hexagon head	
			(Current)	screws. Product	
				grades A and B(ISO	
				4017 : 2014)	
			BS EN ISO	Hexagon head bolts.	
			4014:2011	Product grades A	
			(Current)	and B	
		Nut	BS EN ISO	Hexagon nuts, style	Low
	Specification for	BS 4190:2001	4032:2001	1. Product grades A	priority
	ISO metric black	(Grade 10)	(Superseded,	and B	
	hexagon bolts,	(Withdrawn)	Withdrawn)		
	screws and nuts.	Replaced by			
		BS 4190 : 2014			
		(Current)	Replaced by		
			BS EN ISO 4032:	Hexagon regular	
			2012	nuts (style 1).	
			(Current)	Product grades A	
				and B	

		Washer	BS EN ISO	Plain washers.	Low
	Specification for	BS 4320:1968	7091:2000	Normal series.	priority
	metal washers for	(Current)	(Current)	Product grade C	
	general engineering				
	purposes. Metric				
	series.				
HSFG Bolt		General grade	BS EN 14399-	High-strength	Low
	Specification for	BS 4395-1: 1969,	Part 1 to 6:2005	structural bolting	priority
	high strength	(Withdrawn)	(Withdrawn)	assemblies for	
	friction grip bolts		Replaced by	preloading.	
	and associated nuts		BS EN 14399 -		
	and washers for		Part 1 to 6 : 2015	Part 1: General	
	structural		(Current)	requirements	
	engineering.				
	Part 1: General			Part 2: Suitability	
	grade			test for preloading	
		BS 4604-1: 1970			
	Specification for the	(Withdrawn)		Part 3: System HR.	
	use of high strength			Hexagon bolt and	
	friction grip bolts in			nut assemblies	
	structural steelwork.				
	Metric series.			Part 4: System HV.	
	Part 1: General			Hexagon bolt and	
	grade			nut assemblies	
				Part 5: Plain	
				washers	

				Part 6: Plain chamfered washers	
HSFG Bolt	Specification for	Higher grade	BS EN 14399-	High-strength	Low
	high strength	BS 4395-2: 1969	Part 1 to 6 :2005	structural bolting	priority
	friction grip bolts	(Withdrawn)	(Withdrawn)	assemblies for	
	and associated nuts		Replaced by	preloading.	
	and washers for		BS EN 14399 -		
	structural		Part 1 to 6 : 2015	Part 1: General	
	engineering.		(Current)	requirements	
	Part 2: Higher grade				
	bolts and nuts and			Part 2: Suitability	
	general grade			test for preloading	
	washers				
				Part 3: System HR.	
	Specification for the	BS 4604-2: 1970		Hexagon bolt and	
	use of high strength	(Withdrawn)		nut assemblies	
	friction grip bolts in				
	structural steelwork.			Part 4: System HV.	
	Metric series.			Hexagon bolt and	
	Part 2: Higher grade			nut assemblies	
	(parallel shank)				
				Part 5: Plain	
				washers	
				Part 6: Plain	
				chamfered washers	