



British Steel's freecutting steels are used to manufacture a huge range of precision components in the automotive and office equipment industries.

We supply a wide range of compositions to meet national and international specifications, as well as customers' individual requirements.

Freecutting steels

These grades of steel are designed to withstand the high-speed manufacturing processes used for precision components.

Semi freecutting steels

British Steel's range of semi freecutting steels offers high performance where a combination of machinability and strength is required.

Rigorous testing for quality assurance

The quality of our products is assured by rigorous testing procedures conducted in well-equipped laboratories to verify stringent criteria such as segregation, steel cleanliness, scale, surface quality, decarburisation, chemical composition, size, shape and tensile strength properties. Our products meet the required standards for the most challenging and safety-critical applications.

British Steel is accredited to both ISO 9001:2015 for our quality management system and ISO 14001:2004 for our environmental management system.

Delivering quality

Despatch of wire rod coils through our purpose-built wire rod service centre or Automated Coil Warehouse allows British Steel to offer an efficient delivery service. These streamlined despatch facilities are equipped with bespoke handling equipment which, combined with minimal handling and an anti-abrasive flooring system, minimises storage and handling damage.

Technical support from our specialists

Our team of experienced metallurgists provides dedicated technical support to our customers, including selection of the most appropriate steel grade and size, detailed metallurgical analysis to solve specific processing problems, and the development of new and more advanced grades of steel for increasingly demanding applications.

Wire rod dimensions

Rod diameter	5.5 - 17.0mm in 0.5mm increments
Coil weight	1,800 - 2,200kg
Coil length	1,350 - 1,700mm
Coil dimensions	Outside diameter: 1,250mm max Inside diameter: 850mm min

Freecutting steel grades

The tables below indicate the typical chemical analysis for British Steel's freecutting grades. Other grades can be considered and are available upon request.

Leaded freecutting grades

Standard	Grades	Typical Supplied Chemical Analysis (Ladle)						
		C	Si	Mn	P	S	Pb	N
EN10087	11SMnPb30	0.07-0.09	<0.01	1.00-1.05	0.05-0.07	0.28-0.32	0.26-0.29	-
	11SMnPb30 (High PB + N)	0.07-0.09	<0.01	1.05-1.10	0.05-0.07	0.28-0.32	0.29-0.33	0.009-0.012
	11SMnPb37	0.07-0.09	<0.01	1.20-1.30	0.06-0.08	0.35-0.39	0.28-0.33	0.007-0.012
	36SMnPb14	0.33-0.36	0.15-0.19	1.45-1.55	0.025 max	0.10-0.14	0.20-0.25	-
EN10084	C15PB	0.13-0.15	0.20-0.25	0.40-0.50	0.025 max	0.020-0.030	0.20-0.25	-
AISI/SAE	12L14	0.07-0.09	<0.01	1.00-1.05	0.05-0.07	0.28-0.32	0.26-0.29	-

Non-leaded freecutting grades

Standard	Grades	Typical Supplied Chemical Analysis (Ladle)						
		C	Si	Mn	P	S	N	Cr
EN10087	11SMn30	0.07-0.09	<0.01	0.98-1.02	0.05-0.07	0.27-0.31	-	-
	11SMn37	0.07-0.09	<0.01	1.20-1.30	0.06-0.08	0.35-0.39	0.007-0.012	-
	44SMn28	0.42-0.43	0.20-0.25	1.55-1.60	0.025 max	0.27-0.30	-	-
	46S20	0.44-0.47	0.15-0.20	1.00-1.05	0.025 max	0.18-0.22	-	0.12-0.17
AISI/SAE	1144	0.42-0.43	0.20-0.25	1.55-1.60	0.025 max	0.27-0.30	-	-
	1215	0.07-0.09	<0.01	0.98-1.02	0.05-0.07	0.27-0.31	-	-

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