



Grades, properties and nearest equivalents.

Table 1. EN10025 : part 2 : 2004 - Nonalloy structural steels

Comparison between grades in EN 10025: part 2 : 2004 & nearest equivalent versions in EN 10025 : 1993 and BS 4360 : 1990

EN 10025 : part 2 : 2004				EN 10025 : 1993	BS 4360 : 1990	
Grade	Yield (Reh) min	Tensile (Rm)	Charpy V-notch longitudinal		Grade	Grade
	Strength at t = 16mm (MPa)		Temp (deg C)	Energy (J) t = 16mm		
S185	185	290/510	-	-	S185	-
- *1	235	360/510	-	-	S235	40A
S235JR *2			20	27	S235JRG1/G2	40B
S235J0			0	27	S235J0	40C
S235J2			-20	27	S235J2G3/G4	40D
- *1	275	410/560	-	-	S275	43A
S275JR *2			20	27	S275JR	43B
S275J0			0	27	S275J0	43C
S275J2			-20	27	S275J2G3/G4	43D
- *1	355	470/630	-	-	S355	50A
S355JR *2			20	27	S355JR	50B
S355J0			0	27	S355J0	50C
S355J2			-20	27	S355J2G3/G4	50D
S355K2			-20	40	S355J2G3/G4	50DD
E295	295	470/610	-	-	E295	-
S335	335	570/710	-	-	S335	-
E360	360	650/830	-	-	E360	-

(1 MPa = 1 N/mm²)

Notes:

1. For all products to be compliant with the EU Construction Products Directive (CPD 89/106/EC) the material must offer a guaranteed minimum impact performance. This has resulted in the removal of this grade from the standard, and the lowest grade now offered is the JR version for each yield strength variation.
2. Verification of the specified impact value is only carried out when agreed at the time of the enquiry and order.



Grades, properties and nearest equivalents (Cont).

Table 2. EN10025 : part 2 : 2004 - Nonalloy structural steels

Comparison between grades in EN 10025: part 2 : 2004 & nearest equivalent versions in EN 10025 : 1993 and BS 4360 : 1990

EN 10025 : part 3 : 2004				EN10113 : part 2 : 1993	BS 4360 : 1990	
Grade	Yield (Reh) min	Tensile (Rm)	Charpy V-notch longitudinal		Grade	Grade
	Strength at t = 16mm (MPa)		Temp (deg C)	Energy (J) t = 16mm		
S275N	275	375/510	-20	40	S275N	43DD
S275NL			-50	27	S275NL	43EE
S355N	355	470/630	-20	40	S355	50
S355NL			-50	27	S355NL	50EE
S420N	420	520/680	-20	40	S420N	-
S420NL			-50	27	S420NL	-
S460M	460	550/720	-20	40	S460M	55C
S460ML			-50	27	S460ML	55EE

(1 MPa = 1 N/mm²)

Notes:

1. For all products to be compliant with the EU Construction Products Directive (CPD 89/106/EC) the material must offer a guaranteed minimum impact performance. This has resulted in the removal of this grade from the standard, and the lowest grade now offered is the JR version for each yield strength variation.

2. Verification of the specified impact value is only carried out when agreed at the time of the enquiry and order.

Table 3. EN10025 : part 4 : 2004 - Thermomechanically rolled weldable fine grain structural steels

Comparison between grades in EN 10025 : part 4 : 2004 & nearest equivalent versions in EN 10113 : part 3 : 1993

EN 10025 : part 4 : 2004				EN10113 : part 3 : 1993	
Grade	Yield (Reh) min	Tensile (Rm)	Charpy V-notch longitudinal		Grade
	Strength at t = 16mm (MPa)		Temp (deg C)	Energy (J) t = 16mm	
S275M	275	370/510	-20	40	S275N
S275ML			-50	27	S275NL
S355M	355	470/630	-20	40	S355
S355ML			-50	27	S355NL
S420M	420	520/680	-20	40	S420N
S420ML			-50	27	S420NL
S460M	460	550/720	-20	40	S460M
S460ML			-50	27	S460ML



Grades, properties and nearest equivalents (continued)

Table 4. EN10025 : part 5 : 2004 - Structural steels with improved atmospheric corrosion resistance

Comparison between grades in EN 10025: part 5 : 2004 and nearest equivalent versions in EN 10155 : 1993 and BS 4360 : 1990

EN 10025 : part 5 : 2004				EN 10155 : 1993	BS 4360 : 1990	
Grade	Yield (Reh) min	Tensile (Rm)	Charpy V-notch longitudinal		Grade	Grade
	Strength at t = 16mm (MPa)		Temp (deg C)	Energy (J) t = 16mm		
S235JOW	235	360/510	0	27	S235JOW	-
S235J2W			-20	27	S235J2W	-
S355JOWP	355	470/630	0	27	S355JOWP	WR50A
S355J2WP			-20	27	S355J2WP	-
S355JOW	355	470/630	0	27	S355JOW	WR50B
S355J2W			-20	27	S355J2W	WR50C
S355K2W			-20	40	S355K2W	WR50D

(1 MPa = 1 N/mm²)

Table 5.

EN 10025 : part 6 : 2004

Flat products of high yield strength structural steels in the quenched and tempered condition

Comparison between grades in EN 10025: part 6 : 2004 and nearest equivalent versions in EN 10137 : 1996 and BS 4360 : 1990

EN 10025 : part 6 : 2004				EN 10137 : part 2 : 1996	BS 4360 : 1990	
Grade	Yield (Reh) min	Tensile (Rm)	Charpy V-notch longitudinal		Grade	Grade
	Strength at t = 16mm (MPa)		Temp (deg C)	Energy (J) t = 16mm		
S460Q	460	550/720	0	40	S460Q	-
S460QL			0	50	S460QL	-
S460QL1			0	60	S460QL1	55F
S500Q	500	590/770	0	40	S500Q	-
S500QL			0	50	S500QL	-
S500QL1			0	60	S500QL1	-
S550Q	550	640/820	0	40	S550Q	-
S550QL			0	50	S550QL	-
S550QL1			0	60	S550QL1	-
S620Q	620	700/890	0	40	S620Q	-
S620QL			0	50	S620QL	-
S620QL1			0	60	S620QL1	-
S690Q	690	770/940	0	40	S690Q	-
S690QL			0	50	S690QL	-
S690QL1			0	60	S690QL1	-
S890Q	890	940/1100	0	40	S890Q	-
S890QL			0	50	S890QL	-
S890QL1			0	60	S890QL1	-
S960Q	960	980/1150	0	40	S960Q	-
S960QL			0	50	S960QL	-

(1 MPa = 1 N/mm²)