

## Material properties

<b>Material</b>	<b>St 44-2 / S275JR (Germany / DIN)</b>
<b>Group</b>	Structural and constructional steels
<b>Subgroup</b>	DIN 2393-2 Welded precision steel tubes
<b>Comment</b>	Technical delivery conditions; DIN 2393-2 was superseded by EN 10305-2

**Application** -

Yield Stress[MPa]			
Dimension	Min	Max	Approx
Welded tube; Cold-finished and stress relief annealed (BKS)	375	-	-
<b>Note:</b> Yield Stress is Upper Yield Stress			
Welded tube; Normalized (NBK)	255	-	-
<b>Note:</b> Yield Stress is Upper Yield Stress			

Tensile Stress[MPa]			
Dimension	Min	Max	Approx
Welded tube; Cold-finished as-drawn (BK)	560	-	-
Welded tube; Lightly cold-worked after the last heat treatment (BKW)	510	-	-
Welded tube; Cold-finished and stress relief annealed (BKS)	510	-	-
Welded tube; Annealed (GBK)	390	-	-
Welded tube; Normalized (NBK)	410	540	-

Elongation A5 [%]			
Dimension	Min	Max	Approx
Welded tube; Cold-finished as-drawn (BK)	5.0	-	-
Welded tube; Lightly cold-worked after the last heat treatment (BKW)	8.0	-	-
Welded tube; Cold-finished and stress relief annealed (BKS)	12.0	-	-
Welded tube; Annealed (GBK)	21.0	-	-
Welded tube; Normalized (NBK)	21.0	-	-

### Chemical Composition [%]

Criterion	Min	Max	Approx
C	-	0.2100	-
Si	-	0.3000	-
Mn	-	1.1000	-
P	-	0.0250	-
S	-	0.0250	-
V	-	0.0500	-
Ti	-	0.0300	-
Nb	-	0.0300	-
Al	0.0200	-	-
Nb+Ti+V	-	0.0500	-

### Cross Reference Table

Material	Standard	Country
<b>S 235 JR</b>	<b>B.S.</b>	United Kingdom
<b>S 275 JR</b>	<b>B.S.</b>	United Kingdom
<b>HR 37/23</b>	<b>B.S.</b>	United Kingdom
<b>CS 37/23</b>	<b>B.S.</b>	United Kingdom
<b>HS 37/23</b>	<b>B.S.</b>	United Kingdom
<b>11443</b>	<b>CSN</b>	Czech Republic
<b>Q255A</b>	<b>GB</b>	China
<b>1.0037</b>	<b>WN</b>	Germany
<b>1.0044</b>	<b>WN</b>	Germany
<b>St 44-2</b>	<b>DIN</b>	Germany
<b>S235JR / Fe 360 B</b>	<b>DIN</b>	Germany
<b>St 37-2</b>	<b>DIN</b>	Germany
<b>S275JR / Fe 430 B</b>	<b>DIN</b>	Germany
<b>St 37-2 G</b>	<b>DIN</b>	Germany
<b>Fe 42 B1 FN</b>	<b>EN</b>	European Union
<b>Fe 42 B1 FU</b>	<b>EN</b>	European Union
<b>Fe 42 B3 FN</b>	<b>EN</b>	European Union
<b>Fe 42 B3 FU</b>	<b>EN</b>	European Union
<b>Fe 42-3 FN</b>	<b>EN</b>	European Union
<b>S 235 JR</b>	<b>EN</b>	European Union

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Material	Standard	Country
S 275 JR	EN	European Union
1.0037	EN	European Union
1.0044	EN	European Union
Fe 430 B	EN	European Union
Fe 360 B	EN	European Union
S 235 JR	AFNOR NF	France
S 275 JR	AFNOR NF	France
Fe 360 B	UNI	Italy
Fe 360 C	UNI	Italy
Fe 360 D	UNI	Italy
Fe 430 B	UNI	Italy
Fe 430 C	UNI	Italy
S 235 JR	UNI	Italy
S 275 JR	UNI	Italy
STKM 12 A	JIS	Japan
STKM 12 C	JIS	Japan
STKR 400	JIS	Japan
St4ps	GOST	Russia
St4sp	GOST	Russia
1311	SS	Sweden
1411	SS	Sweden
1412	SS	Sweden
SA-283 B	ASME	USA
SA-283 D	ASME	USA
38W	CSA	Canada
St 3 S	PN	Poland
S 235 JR	UNE	Spain
S 275 JR	UNE	Spain
S 235 JR	NBN	Belgium
S 275 JR	NBN	Belgium
S 235 JR	NS	Norway
S 275 JR	NS	Norway
St 37 F	ONORM	Austria
FK	MSZ	Hungary
Fe 235 B	MSZ	Hungary

## Cross Reference Table

Material	Standard	Country
Fe 275 B	MSZ	Hungary
Fe 275 D	MSZ	Hungary
K02702	UNS	USA
K01702	UNS	USA
A 283 Grade B	ASTM	USA
A 283 Grade D	ASTM	USA
C 0370	JUS	Yugoslavia