Material properties

Material **St 37-3 (Germany / DIN)**

Group Structural and constructional steels

Subgroup DIN 17100 Steels for general structural purposes

Comment Quality standard; DIN 17100 was superseded by EN 10025, EN 10222-1, EN 10250-1 and EN 10250-2

Application -

Yield Stress[MPa]			
Dimension	**Min**	**Max**	**Approx**
Normalized; >= 0.5 < 1 mm **Note:** Yield stress is Upper Yield Stress (ReH)	235	-	-
Normalized; >= 1 < 1.5 mm **Note:** Yield stress is Upper Yield Stress (ReH)	235	-	-
Normalized; >= 1.5 < 2 mm **Note:** Yield stress is Upper Yield Stress (ReH)	235	-	-
Normalized; >= 2 < 2.5 mm **Note:** Yield stress is Upper Yield Stress (ReH)	235	-	-
Normalized; >= 2.5 < 3 mm **Note:** Yield stress is Upper Yield Stress (ReH)	235	-	-
Normalized; >= 3 <= 16 mm **Note:** Yield stress is Upper Yield Stress (ReH)	235	-	-
Normalized; > 16 <= 40 mm **Note:** Yield stress is Upper Yield Stress (ReH)	225	-	-
Normalized; > 40 <= 63 mm **Note:** Yield stress is Upper Yield Stress (ReH)	215	-	-
Normalized; > 63 <= 80 mm **Note:** Yield stress is Upper Yield Stress (ReH)	215	-	-
Normalized; > 80 <= 100 mm **Note:** Yield stress is Upper Yield Stress (ReH)	215	-	-

Tensile Stress[MPa]			
Dimension	**Min**	**Max**	**Approx**
Normalized; >= 0.5 < 1 mm	360	510	-
Normalized; >= 1 < 1.5 mm	360	510	-
Normalized; >= 1.5 < 2 mm	360	510	-
Normalized; >= 2 < 2.5 mm	360	510	-
Normalized; >= 2.5 < 3 mm	360	510	-
Normalized; >= 3 <= 16 mm	340	470	-
Normalized; > 16 <= 40 mm	340	470	-

Tensile Stress[MPa]			
Dimension	**Min**	**Max**	**Approx**
Normalized; > 40 <= 63 mm	340	470	-
Normalized; > 63 <= 80 mm	340	470	-
Normalized; > 80 <= 100 mm	340	470	-

Elongation A5 [%]			
Dimension	**Min**	**Max**	**Approx**
Normalized; >= 0.5 < 1 mm **Note:** Lo = 80 mm; (long.)	17.0	-	-
Normalized; >= 1 < 1.5 mm **Note:** Lo = 80 mm; (long.)	18.0	-	-
Normalized; >= 1.5 < 2 mm **Note:** Lo = 80 mm; (long.)	19.0	-	-
Normalized; >= 2 < 2.5 mm **Note:** Lo = 80 mm; (long.)	20.0	-	-
Normalized; >= 2.5 < 3 mm **Note:** Lo = 80 mm; (long.)	21.0	-	-
Normalized; >= 3 <= 16 mm **Note:** (long.)	26.0	-	-
Normalized; > 16 <= 40 mm **Note:** (long.)	26.0	-	-
Normalized; > 40 <= 63 mm **Note:** (long.)	25.0	-	-
Normalized; > 63 <= 80 mm **Note:** (long.)	24.0	-	-
Normalized; > 80 <= 100 mm **Note:** (long.)	24.0	-	-

Chemical Composition [%]			
Criterion	**Min**	**Max**	**Approx**
C	-	0.1700	-
P	-	0.0400	-
S	-	0.0400	-
Al	0.0200	-	-

- C d (mm) < 100

Cross Reference Table

Material	Standard	Country
S 235 J 2 G 3	**AFNOR NF**	France
A 284 Grade D	**ASTM**	USA
A 414 Grade A	**ASTM**	USA
304 S 15	**B.S.**	United Kingdom
CS 37/23	**B.S.**	United Kingdom
HS 37/23	**B.S.**	United Kingdom
304 S 16	**B.S.**	United Kingdom
S 235 J 2 G 3	**B.S.**	United Kingdom
HR 37/23	**B.S.**	United Kingdom
11378	**CSN**	Czech Republic
S235J2G3 / Fe 360 D1	**DIN**	Germany
St 37-3 G	**DIN**	Germany
UZSt 37-2	**DIN**	Germany
Fe 360 D1	**EN**	European Union
1.0116	**EN**	European Union
S 235 J2 G3	**EN**	European Union
St3sp	**GOST**	Russia
16D	**GOST**	Russia
C 0363	**JUS**	Yugoslavia
Fe 235 D	**MSZ**	Hungary
S 235 J 2 G 3	**NBN**	Belgium
S 235 J 2 G 3	**NS**	Norway
St 3 W	**PN**	Poland
1313	**SS**	Sweden
OL 37.3 k	**STAS**	Romania
S 235 J 2 G 3	**UNE**	Spain
S 235 J2G3	**UNI**	Italy
K01501	**UNS**	USA
1.0116	**WN**	Germany
1.0161	**WN**	Germany