

Quality

S275JR

According to Standard

EN 10025 - 2 : 2004

Number

1.0044



Comparable Standards

German
DINFrance
AFNORSpain
UNEChina
GBU.K.
B.S.Russia
GOSTUSA
AISI - SAEJapan
JIS

St44-2

E28-2

AE275B

Q255A

43B

St4sp

A283 grd

E 275 B

Chemical Analysis

C%
maxSi%
maxMn%
maxP%
maxS%
maxN%
maxCu%
max

0.21 - 0.24

1.50 - 1.60

0.035 - 0.045

0.035 - 0.045

0.012 - 0.014

0.40 - 0.45

Hot Work and Heat Treatment Temperatures

Temperature °C

| Hot - Forming | Supply State +U | Soft Annealing +A | Isothermal Annealing +I | Normalising & Tempering | Quenching & Tempering QT | Stress-relieving +SR |
|---------------|-----------------|-------------------|-------------------------|-------------------------|--------------------------|--|
| 1150 - 850 | natural state | 650 - 700 air | | 880 - 920 air | 860 - 900 water | 50° under the temperature of tempering |
| | | | | 550 - 660 air | 550 - 660 air | |

Mechanical Properties at Room Temperature

Hot Rolled EN 10025 - 2 : 2004 S 275JR

Testing at room temperature , Kv +20° C

| Size mm | | R | ReH | A% L | A% T | Kv L +20°C | HB |
|---------|-------|-----------|-----------|------|------|------------|-----------|
| Dia | Thick | N/mm2 | N/mm2 min | min | min | J min | for inf. |
| | 3 | 430 - 580 | 275 | | | | |
| 3 | 16 | 410 - 560 | 275 | 23 | 21 | 27 | 122 - 162 |
| 16 | 40 | 410 - 560 | 265 | 23 | 21 | 27 | 122 - 162 |
| 40 | 63 | 410 - 560 | 255 | 22 | 20 | 27 | 122 - 162 |
| 63 | 80 | 410 - 560 | 245 | 21 | 19 | 27 | 122 - 162 |
| 80 | 100 | 410 - 560 | 235 | 21 | 19 | 27 | 122 - 162 |
| 100 | 150 | 400 - 540 | 225 | 19 | 19 | 27 | 119 - 158 |
| 150 | 200 | 380 - 540 | 215 | 18 | 18 | 27 | 110 - 158 |
| 200 | 250 | 380 - 540 | 205 | 18 | 18 | 27 | 110 - 158 |