

Quality

25CrMo4

According to Standard

EN 10083 - 3 : 2006

Number

1.7218



Comparable Standards

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

25CrMo4

25CD4

F222

30CrMo

22ChM . 25XM

4130

Chemical Analysis

C%  
maxSi%  
maxMn%  
maxP%  
max

S%

max

Cr%  
maxMo%  
max

0.22 - 0.29

0.40

0.60 - 0.90

0.025

0.020 - 0.040

0.90 - 1.20

0.15 - 0.30

**Hot Work and Heat Treatment Temperatures****Temperature °C**

| Hot - Forming | Normalizing | Quenching          | Tempering | Soft Annealing                                  | Natural State | Stress-relieving +SR                   |
|---------------|-------------|--------------------|-----------|---|---------------|--|
| 1050 - 850    | 890 air     | 880 oil or polymer | 540 - 680 | 680 - 720 cooling<br>15°C/h to 600,<br>then air | (HB - 270)    | 50° under the temperature of tempering |
|               |             | 840 water          | air       |   |               |  |

**Mechanical Properties at Room Temperature**

Mechanical properties for the ruling section (see EN 10083-1:2006, Annex A) with a diameter Steel designation (d) or for flat products thickness (t)

| d ≤ 16mm<br>t ≤ 8mm                 |                 |      |                                       |                 | 16mm < d ≤ 40mm<br>8mm < t ≤ 20mm |                 |      |     |  | 40mm < d ≤ 100mm<br>20mm < t ≤ 60mm |                 |            |    |
|-------------------------------------|-----------------|------|---------------------------------------|-----------------|-----------------------------------|-----------------|------|-----|--|-------------------------------------|-----------------|------------|----|
| Re                                  | Rm              | A    | Z                                     | KV <sup>b</sup> | Re                                | Rm              | A    | Z   | KV <sup>b</sup>                        | Re                                  | Rm              | A          |    |
| Min.                                |                 | min  | min                                   | min.            | Min.                              |                 | min  | min | min.                                   | Min.                                |                 | min        |    |
| 700                                 | 900 to 1100     | 12   | 50                                    | -               | 600                               | 800 to 950      | 14   | 55  | 50                                     | 450                                 |                 | 700 to 850 | 15 |
| 40mm < d ≤ 100mm<br>20mm < t ≤ 60mm |                 |      | 100mm < d ≤ 160mm<br>60mm < t ≤ 100mm |                 |                                   |                 |      |     | 160mm < d ≤ 250mm<br>100mm < t ≤ 160mm |                                     |                 |            |    |
| Z                                   | KV <sup>b</sup> | Re   | Rm                                    | A               | Z                                 | KV <sup>b</sup> | Re   | Rm  | A                                      | Z                                   | KV <sup>b</sup> |            |    |
| min                                 | min.            | Min. |                                       | min             | min                               | min.            | Min. |     | min                                    | min                                 | min.            |            |    |
| 60                                  | 50              | 400  |                                       | 16              | 60                                | 45              |      |     |  |                                     |                 |            |    |