

| | |
|-----------------------|---------------------|
| Quality | X39CrMo17-1 |
| According to Standard | EN 10088-3:2005 (E) |
| Number | 1.4122 |



| Comparable Standards | EN | W.N. | AISI | | | |
|----------------------|--------------|--------------|--------|--------|----------------------|--------------|
| | X39CrMo17-1 | 1.4122 | — | | | |
| Chemical Analysis | C % | Si % max | Mn % | P% max | | Cr % |
| | 0,33 to 0,45 | 1,00 | ≤ 1,50 | 0,040 | ≤ 0,030 ^b | 15,5 to 17,5 |
| | Cu | Mo % | Nb | Ni % | Others | |
| | — | 0,80 to 1,30 | — | ≤ 1,00 | — | |

Hot Work and Heat Treatment Temperatures

| Heat Treatment Symbol | Hot Forming | | Annealing | | Quenching | | Tempering Temperature °C |
|-----------------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|--------------------------|
| | Temperature °C | Type of cooling | Temperature °C | Type of cooling | Temperature °C | Type of cooling | |
| +A | 1100 to 800 | slow cooling | 750 to 850 | furn.,air | — | — | — |
| +QT 750 | 1100 to 800 | slow cooling | — | — | 980 to 1060 | oil | 650 to 750 |

Mechanical Properties at Room Temperature

| Heat Treatment Condition | Ø mm. | Hardness HB ^c max | Rp0,2 ^d min. N/mm2 | Rm ^d N/mm2 | A ^d min. % | KV min. J |
|--------------------------|----------------------|---------------------------------|----------------------------------|--------------------------|-----------------------|-----------|
| +A | — | 280 | — | max 900 | — | 20 |
| +QT 750 | ≤ 60 60 < t ≤ 160 | — | 550 | 750 to 950 | 12 | 14 |