

## ES 4122

**Name:**

**X 39 CrMo 17-1**

**Material No.:**

1.4122 mod.

**Typical analysis:**

C	Cr	Mo	Ni
0.39	17.0	1.0	≤ 1.0

**As-supplied condition:**

Quenched and tempered:  
280-325 HB  
(950-1100 N/mm<sup>2</sup>)

**Characteristics:**

17% chromium steel with good corrosion resistance

**General fields of application:**

Pump shafts, pipe fittings and compressor components, steam and water valves

**Special note:**

Nitriding the steel causes it to lose corrosion resistance

### Heat treatment data:

	Temperature	Duration	Cooling
Stress-relief annealing	max. 480 °C	min. 4 h	furnace

We recommend stress-relief annealing for more than 30 % machining before finish machining.

### Physical characteristics:

**Coefficient of thermal expansion:** between 20 °C and:

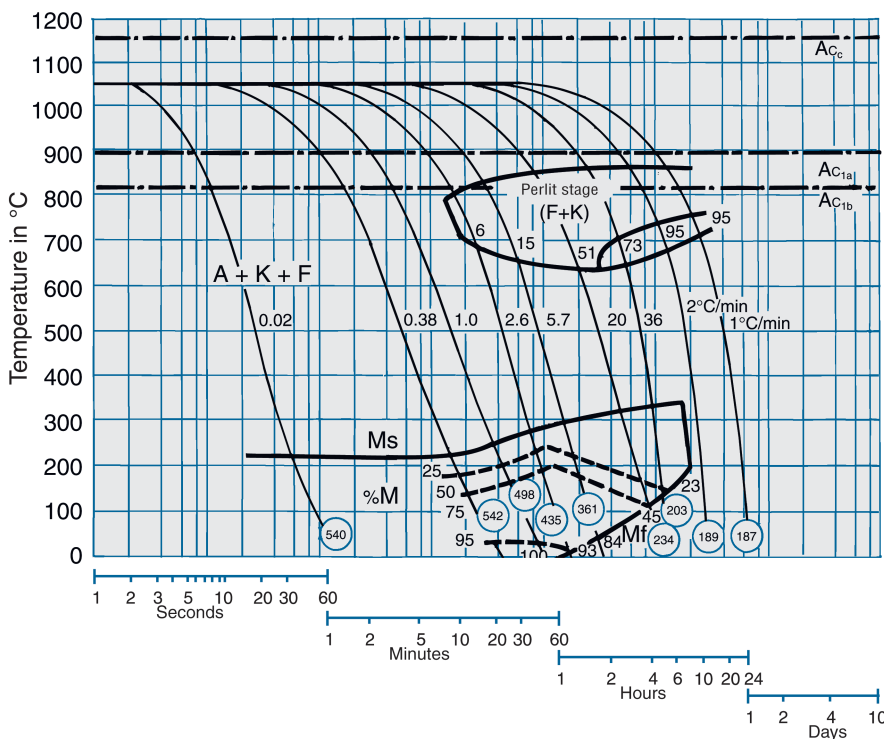
10 <sup>-6</sup> x m	100	200	300	400	500 °C
m x K	10.5	11.0	11.0	11.5	12.0

**Thermal conductivity:**

W	20	350	700 °C
m x K	17.2	21.0	24.7

**Normal working hardness:** Used in the as-supplied condition

### Continuous time-temperature-transformation diagram



### Tempering curve

