

WN 1.7176 or DIN 55Cr3

1. Chemical Composition

| C | Si | Mn | P | S | Cr |
|-----------|-------|---------|---------|---------|---------|
| 0.52-0.59 | ≤ 0.4 | 0.7-1.0 | ≤ 0.025 | ≤ 0.025 | 0.7-1.0 |

2. Mechanical Properties

| Yield stress (Mpa) | UTS (MPa) | Elongation (%) | A (%) | Impact E (J) | Hardness (HB) |
|--------------------|-----------|----------------|--------|--------------|---------------|
| Min 1250 | 1300-1600 | Min 8 | Min 35 | Min 5 | Max 280 |

3. Heat Treatment

| Row | Heat treatment type | Temp. Range °C |
|-----|---------------------|----------------|
| 1 | Normalizing | 850-880 |
| 2 | Annealing | 640-680 |
| 3 | Quenching | 830-850 |
| 4 | Tempering | 390-410 |
| 5 | Hot Work | 850-1050 |

4. Applicable Standards

| EU EN | USA AISI/SAE | Japan JIS | France AFNOR | England BS | Russia GOST |
|-----------|--------------|-----------|--------------|-------------|-------------|
| 55Cr3 | 5155 | SUP9 | 35NCD6 | 525A58 | 50ChGA |
| Italy UNI | China GB | Sweden SS | Poland PN | Czechia CSN | Inter ISO |
| 55Cr3 | 55CrMnA | 2253 | - | - | 55Cr3 |