

Quality Cf53
According to standards DIN 17212:1972
Number 1.1213



| Equivalent | Italy UNI | China GB | Germany DIN | UK | USA AISI/SAE |
|------------|-----------|----------|-------------|--------|--------------|
| | C53 | | Cf53 | 070M55 | 1050 |

| Chemical composition | | | | | | |
|----------------------|-----------|-----------|--------|--------|---------|---------|
| C% max | Si% | Mn% | P% max | S% max | Cr% max | Mo% max |
| 0.50-0.57 | 0.15-0.35 | 0.40-0.70 | 0.025 | 0.035 | - | - |

| Temperature ▲°C | | | | |
|-----------------|-------------------------|-----------|------------------|----------------|
| Hot-forming | Quenching | Tempering | Stress Relieving | Soft Annealing |
| 1050-850 | 830-860 | 550-660 | 180 | 700 air |
| | oil or polymer or water | air | | HB max 223 |

Mechanical properties

| Hot Rolled (+QT) DIN 17212:1972 | | | | | | |
|--|---------------|--------------|--------|----|----|---------|
| Testing at room temperature (longitudinal) | | | | | | |
| size d/t | R (N/mm2 min) | Rp 0.2 N/mm2 | A% min | C% | Kv | HB |
| mm | | | | | | |
| 16 | 740-880 | 510 | 12 | 25 | | 224-263 |
| 16 to 40 | 690-830 | 430 | 14 | 35 | | 210-249 |
| 40 to 100 | 640-780 | 400 | 15 | 40 | | 198-232 |

| Hot Rolled (normalized) DIN 17212:1972 | | | | | | |
|--|---------------|--------------|--------|----|----|---------|
| Testing at room temperature (longitudinal) | | | | | | |
| size d/t | R (N/mm2 min) | Rp 0.2 N/mm2 | A% min | C% | Kv | HB |
| mm | | | | | | |
| 16 to 100 | 610-760 | 340 | 16 | | | 183-226 |

| Cold drawn +QT+C 070M55 BS 970 pt.3: 1991 | | | | | | |
|--|---------------|--------------|--------|----|----|---------|
| Testing at room temperature (longitudinal) | | | | | | |
| size d/t | R (N/mm2 min) | Rp 0.2 N/mm2 | A% min | C% | Kv | HB |
| mm | | | | | | |
| 13 to 29 | 700-850 | 475 | 10 | | | 201-255 |
| 29 to 100 | 700-850 | 435 | 10 | | | 201-255 |