

Corrispondenze
Comparable standards

| SIAU | DIN | W.N. | AFNOR | BS | AISI/SAE |
|------|-----|------|-------|----|----------|
| YCM | - | - | - | - | - |

Composizione
Chemical analysis

| C | Mn | Si | Cr | Ni | Mo | P e S |
|---------|----------|---------|-----------|----|----|--------|
| .33±.40 | .80±1.10 | .15±.40 | 1.00±1.30 | - | - | ≤ .035 |

Temperature per la lavorazione a caldo ed il trattamento termico
Hot work and heat treatment temperatures

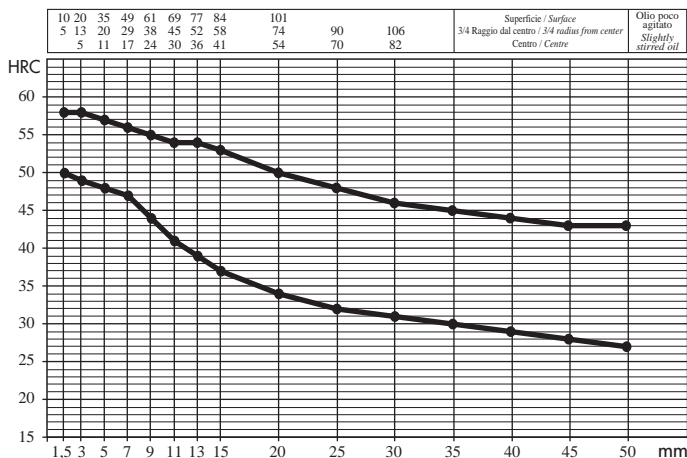
| Punti critici Critical points | Fucinatura Forging | Normalizzazione Normalization | Ricottura subcritica Subcritical annealing | Ricottura isotermica Isothermal annealing | Tempra Hardening | Rinvenimento Tempering |
|----------------------------------|-----------------------|----------------------------------|---|--|---------------------|---------------------------|
| Ac1 750 | | | | | | |
| Ac3 800 | 1100±900 | 850±900 | 680±720 | 850±900 | 830±870 | 550±650 |
| Ms 320 | | | | ↓ 650x2h | olio / oil | |

Caratteristiche meccaniche / Mechanical properties

| Stato Condition | Saggio Ø mm. Specimen Ø mm. | Re min. N/mm ² | Rm N/mm ² | A min. % | KCU min. J | Durezze HB allo stato HB hardness in the following conditions |
|-------------------------------------|--------------------------------|------------------------------|-------------------------|-------------|---------------|--|
| Bonificato Hardened and tempered | ≤ 16 | 685 | 880±1080 | 12 | 25 | Ricotto lavorabile / Soft-annealed ≤ 230 |
| | ≤ 40 | 590 | 780±930 | 13 | 25 | Ricotto isotermico / Isothermal annealed 170±215 |
| | ≤ 100 | 540 | 740±880 | 14 | 25 | Ricotto sferoidale / Spheroidal annealed ≤ 195 |

Temprabilità
Hardenability

| HRC / % Martensite | | Diametro temprabile mm. / Hardenable diameter mm. | |
|--------------------|-----|---|---------------|
| 90% | 50% | olio / oil | acqua / water |
| 51 | 40 | 65 | 80 |

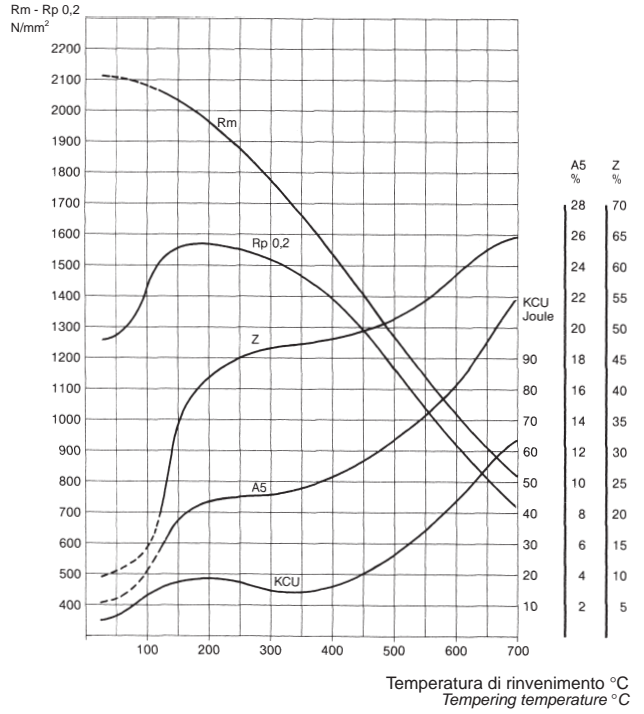


Temprabilità Jominy
Jominy hardenability

| Distanza dall'estremità temprata Distance from quenched end | Durezza Rockwell Rockwell hardness | |
|--|---------------------------------------|---------|
| mm. | HRc min | HRc max |
| 1,5 | 50 | 58 |
| 3 | 49 | 58 |
| 5 | 48 | 57 |
| 7 | 47 | 56 |
| 9 | 44 | 55 |
| 11 | 41 | 54 |
| 13 | 39 | 54 |
| 15 | 37 | 53 |
| 20 | 34 | 50 |
| 25 | 32 | 48 |
| 30 | 31 | 46 |
| 35 | 30 | 45 |
| 40 | 29 | 44 |
| 45 | 28 | 43 |
| 50 | 27 | 43 |

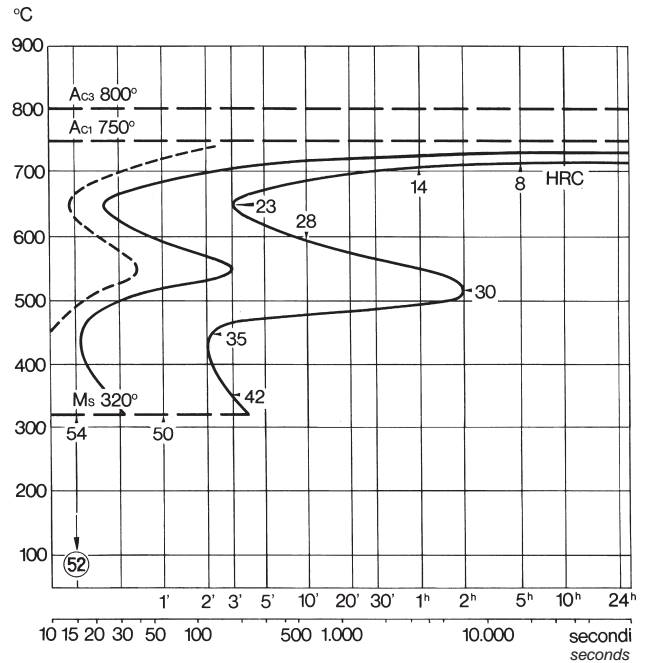
36CrMn5

Diagramma di Rinvenimento Tempering curve



Trattamento: su Ø 16 mm Tempra: 850 °C olio Rinvenimento per 2 ore
 Treatment: on Ø 16 mm Hardening: 850° C oil Tempering for 2 hours

Diagramma T.T.T. T.T.T. diagram



Quadro: 10 mm Austenitizzazione: 850 °C
 Square: 10 mm Austenitizing: 850° C