

Material No.: Code:
1.3343 HS6-5-2C

DE - Brand:
DMO5

Chemical composition:
 (Typical analysis in %)

| C | Cr | Mo | V | W | | | |
|------|------|------|------|------|--|--|--|
| 0,90 | 4,00 | 5,00 | 1,90 | 6,40 | | | |

Steel properties:

High-speed steel, high strength at elevated temperatures, good toughness, high compressive strength, good wear resistance.
 Similar to AISI M2.

Applications:

Standard material for machining tools, e.g. drill bits, milling cutters, screw dies, broaches, inserts for circular saw blades. slotting tools and wood working tools. In addition cold forming tools e.g. cutting and blanking tools, cold extrusion punches and dies. Excellent base material for PVD/CVD coating.

Condition of delivery:

Soft annealed to max. 262 HB

Physical properties:

| | | | | | |
|-------------------------------|---|----------|----------|----------|----------|
| Thermal expansion coefficient | $\left[\frac{10^{-6} \cdot \text{m}}{\text{m} \cdot \text{K}} \right]$ | 20-100°C | 20-200°C | 20-300°C | 20-400°C |
| | | 10,8 | 11,8 | 12,0 | 12,5 |
| Thermal conductivity | $\left[\frac{\text{W}}{\text{m} \cdot \text{K}} \right]$ | 20°C | 350°C | 700°C | |
| | | 27,6 | 27,2 | 26,1 | |

Heat treatment:

Soft annealing

| Temperature | Cooling | Hardness |
|-------------|---------|-------------|
| 780 - 860°C | furnace | max. 262 HB |

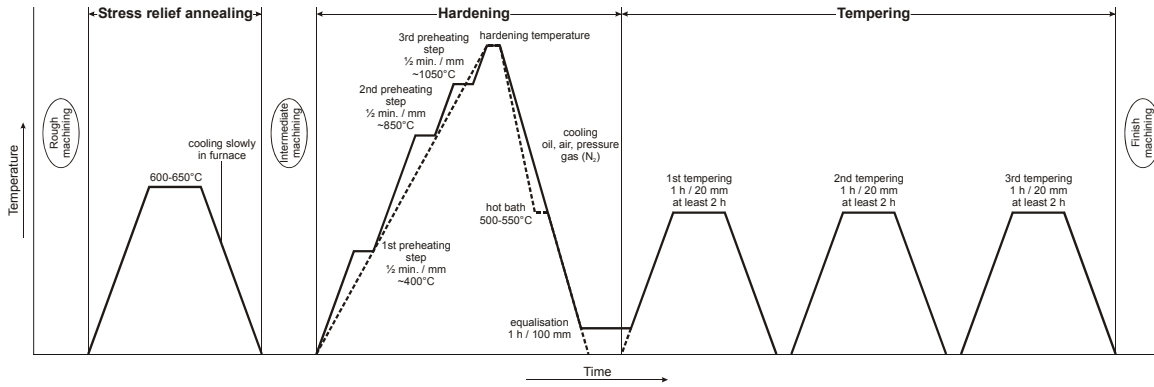
Stress relief annealing

| Temperature | Cooling | |
|-------------|---------|--|
| 600 - 650°C | furnace | |

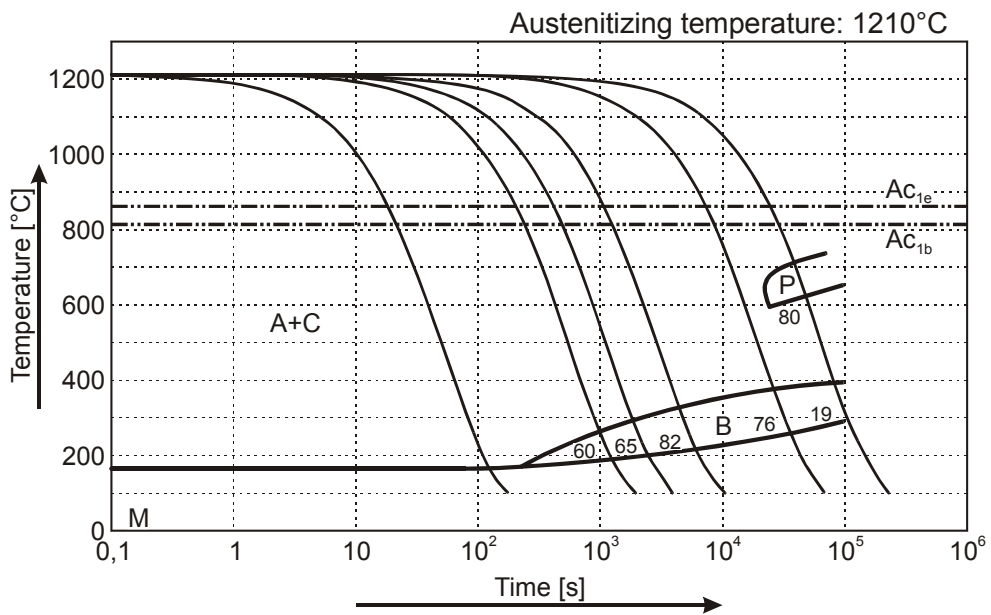
Hardening

| Temperature | Cooling | Tempering |
|---------------|--|--------------------------|
| 1180 - 1230°C | oil, pressure gas (N ₂), air or hot bath 500 - 550°C | see tempering diagram |

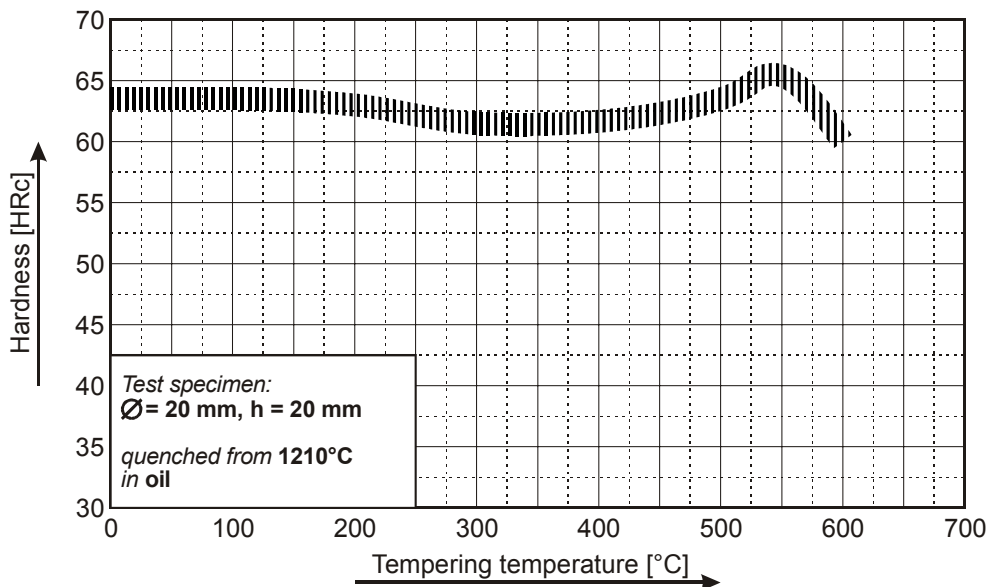
(1.3343) Thermal Cycle Diagram



Continuous Cooling Transformation Diagram (CCT)



Tempering Diagram



Remarks: All technical information is for reference only.