

MFR x 5 Sonder (HQ)

No. 1.2738.02 (VAR)

Typical chemical composition, %

C	0.25
Mn	1.45
Cr	1.30
Mo	0.60
Ni	1.10
V	0.10
S	max. 0.005

PROPERTIES AND USES

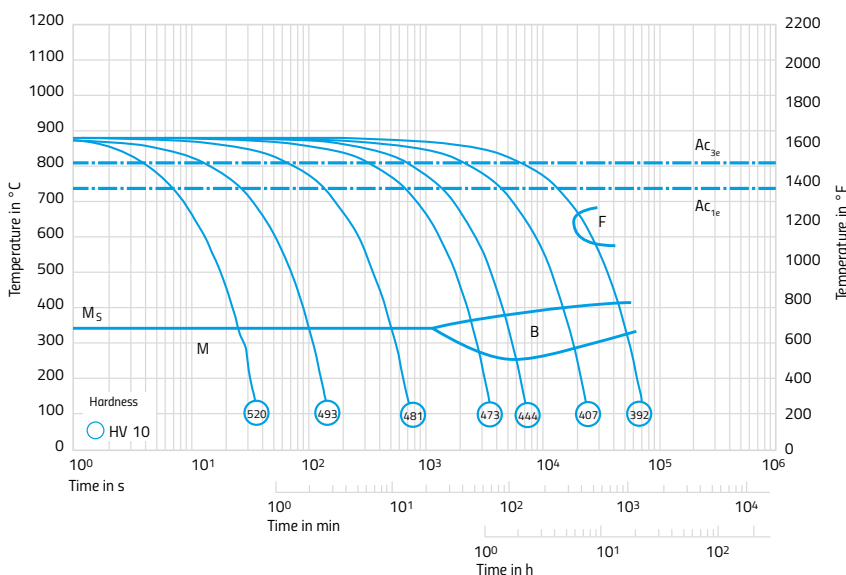
- MFR x 5 Sonder is especially suitable for large parts (e.g. compression and/or injection molds)
- Good polishability
- Good weldability
- Nitridable

- Homogenous hardness up to center area
- As-delivered condition 310–350 HB
- MFR x 5 Sonder (HQ) produced by VAR (Vacuum Arc Remelting) shows an excellent cleanliness and an extremely low segregation level of the material, which lead to a supreme polishability and best texturing properties.

HOT WORKING AND HEAT TREATMENT

Forging	1150–850 °C (2100–1560 °F)
Soft annealing	710–740 °C (1310–1360 °F)
Brinell Hardness in the annealed condition	Max. 240 HB
Working hardness in the quenched and tempered condition	310–350 HB
Stress relieving	In the quenched and tempered condition: ~ 560 °C (1040 °F) 1 hr/50 mm wall thickness In the annealed condition: ~ 600 °C (1110 °F) 1 hr/50 mm wall thickness
Hardening	850–880 °C (1560–1620 °F)
Quenching	Air / oil / water
Tempering	To service hardness 1 hr/25 mm wall thickness
Reference values for annealing	200 °C (390 °F) = 50 HRC 300 °C (570 °F) = 48 HRC 400 °C (750 °F) = 47 HRC 500 °C (930 °F) = 44 HRC 550 °C (1020 °F) = 41 HRC 600 °C (1110 °F) = 37 HRC

CONTINUOUS TTT CURVE



TEMPERING CURVE (APPROX. VALUES)

