



INTERNATIONAL MOLD STEEL, INC.

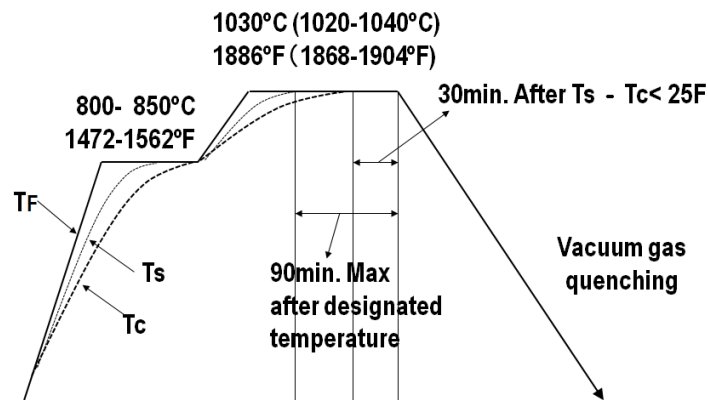
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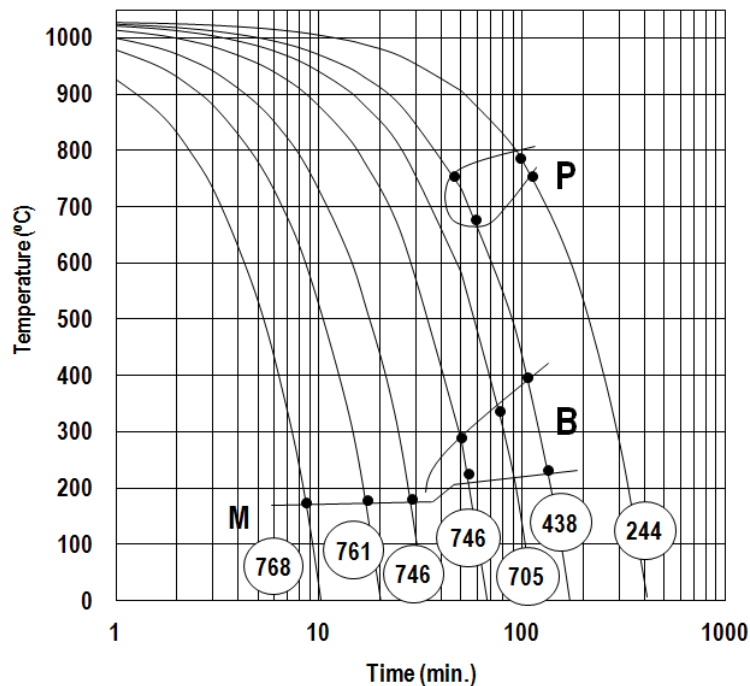
Heat treatment of DCMX

Quenching



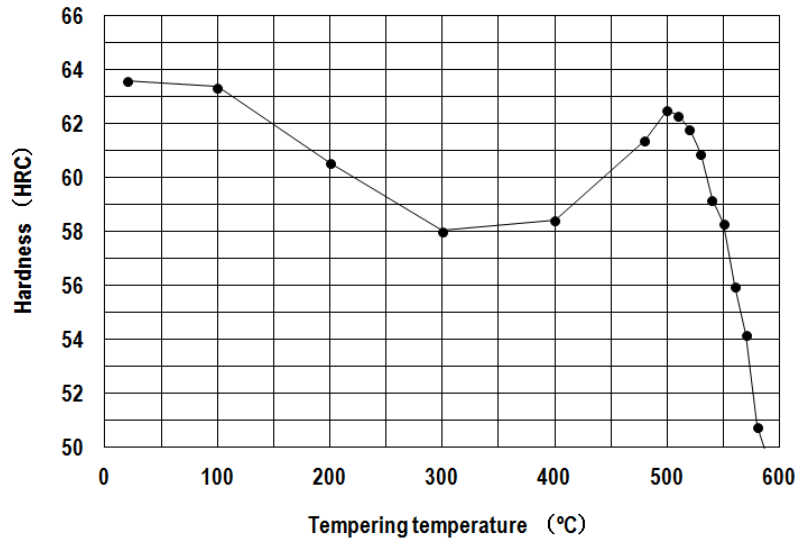
- Notes
- 1 Temperature for pre-heating and austenitizing similar to D2, but 1886°F is ideal.
 - 2 Holding time shown here is general one. The standard for D2 is applicable for DCMX.
 - 3 General gas quenching for D2 is applicable for DCMX, but must be completed within 100 minutes as follows: **If the temperature measurement of actual dies is available, it is necessary to cool down to 500°C (932°F) in 40min. to prevent pearlitic transformation. To obtain high enough hardness as quenched, to cool down to Ms temperature (180°C) within 60min.**

CCT Curve



Tempering

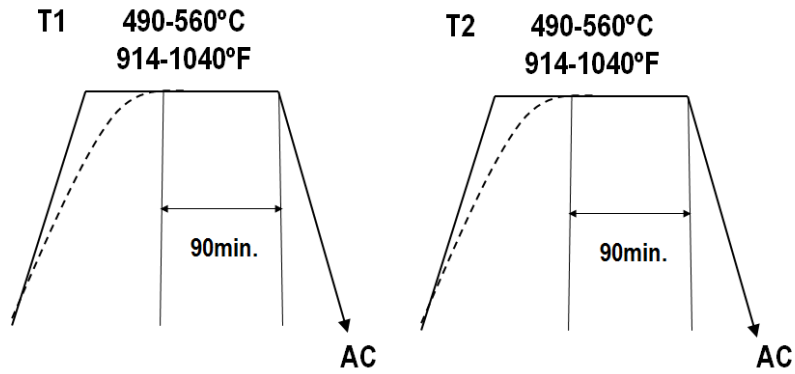
Tempering hardness curve



Double tempering at high temperature

Selection of tempering temperature

58/60 HRC	540°C (1004°F)
60/62 HRC	520°C (968°F)



Note. Holding time is decided by the type and the size of furnace used and the amount of the load of a batch. General holding time for D2 is applicable.

When dimensional change with time comes up as a problem, even as small as 10-20 μm , additional tempering at 400°C (752°F) is recommended to prevent this problem.

