

# CN738/738H

## 国产塑胶模具钢

Plastic Mould Steel (China Made)

预硬材料 Prehardened Steel

中小型模具及模架 Small to Medium Size Plastic Injection Mould and Mould Base

## CN738/738H 简介 Introduction

CN738/738H是龍記集團根据广大模具客户需求，开发的国产模具钢产品，化学成分标准参照美国AISI P20+Ni改良，或者德国W.Nr 1.2738；CN738H是在CN738基础上，提高供货的硬度，满足更高耐磨需求之预加硬塑胶模具钢。

CN738/738H主要用于无表面要求之塑胶模具、塑胶模具下模件、高强度要求之模架。

CN738/738H are developed by LKM through her sourcing channels in China to fit the demands from wide range of customers. Both of them are produced with reference to AISI P20+Ni or W.Nr 1.2738; CN718H is delivered with a higher hardness which could provide better wear resistance comparing to CN718.

CN738/738H are mainly used for plastic injection mould without high surface finish requirement, core/movable part of plastic injection mould, mould base with high strength requirement.

### 供货状态 (原材表面硬度) Delivered Hardness From Steel Mill (Measured at Surface)

预硬至HB280-330 Prehardened to HB280-330

预硬至HB330-380 Prehardened to HB330-380

### 参照标准

- AISI P20+Ni
- W.Nr 1.2738

### Comparable Standard

- AISI P20+Ni
- W.Nr 1.2738

### 化学成分(%) Chemical Composition (Percentage by Mass)

碳 C	锰 Mn	铬 Cr	钼 Mo	镍 Ni
0.37	1.4	1.8	0.25	1.0

### 应用

- 无表面要求之中小型塑胶模具
- 适用于高强度模架

### Application

- Core/movable part of plastic injection mould without high surface finish requirement
- Mould base/plate with high strength requirement for plastic injection mould and die casting die

### 物理性能 Physical Properties

温度(°C) Temperature	20-100	20-200	20-300	20-400	20-500	20-600	20-700
热膨胀系数 [10 <sup>-6</sup> m/(m x K)] Coefficient of Thermal Expansion	11.1	12.9	13.4	13.8	14.2	14.6	14.9

温度(°C) Temperature	20	350
热传导率 [W/(m x K)] Thermal Conductivity	35.5	33.2

### ▶▶▶ 纯洁度 Purity

A (硫化物类) Sulfide Type	B (氧化铝类) Alumina Type	C (硅酸盐类) Silicate Type	D (球状氧化物类) Globular Oxide Type
≤2.0	≤2.0	≤2.0	≤2.0

### ▶▶▶ 超声波检测

(☉) SEP 1921-Test Group 3, Class C/c

### ▶▶▶ Ultrasonic Testing

(☉) SEP 1921- Test Group 3, Class C/c

### ▶▶▶ 焊接处理

- ✦ 焊接前预热温度：350°C
- ✦ 焊接使用专业焊枝（LKM牌号Z04-P07-XX）
- ✦ 焊接后在550°C作去应力处理

### ▶▶▶ Welding

- ✦ Preheating temperature: 350°C
- ✦ Welding rod: LKM Z04-P07-XX
- ✦ Stress relieving temperature after welding: 550°C

### ▶▶▶ 表面处理

✦ 可以通过氮化、镀铬或PVD等表面处理提高模具表面的硬度，延长模具的使用寿命

### ▶▶▶ Surface Treatment

✦ Suitable for all nitriding processes, hard chromium plating or PVD coating to increase surface hardness and improve mould life

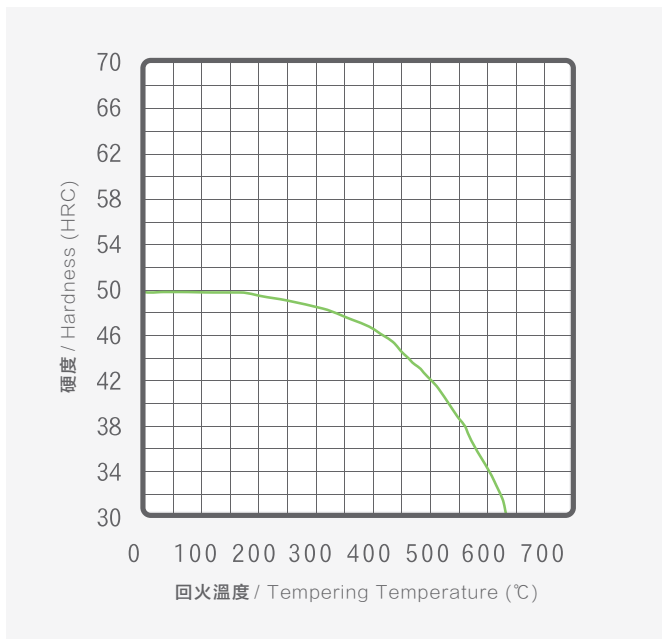


## 热处理工艺 Heat Treatment

锻造 Forging	软性退火 Annealing	淬硬 Quenching	回火 Tempering
1050-800°C	710-740°C	850-880°C	560-680°C

### 回火图 (试样尺寸 : $\varnothing 25 \times 50\text{mm}$ ; 油淬温度 : 880°C)

Tempering Curve (Sample dimension:  $\varnothing 25 \times 50\text{mm}$ ; Quenched at 880°C by Oil)



**LKM**® 龍記集團  
LUNG KEE GROUP



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