



The mix of the major elements chromium, molybdenum, vanadium and carbon is responsible for the balanced characteristics of GS-307:

- high toughness
- high wear resistance
- high pressure strength
- good dimensional stability after heat treatment
- good polishability

The combination of this characteristics allows to use GS-307 for numerous applications:

- Blanking dies
- Cropping dies
- Shear dies
- Trim dies

With regard to the main properties necessary for these applications GS-307 closes the gap between GS-344 EFS and GS-363.

The recommended hardness after heat treatment is 52-58 HRC.

After EDM a double retempering approx. 50°C below the last tempering

GS-307的應用特性可補H13及A2的不足之處.

應用硬度一般在52HRC-58HRC之間.

火花電蝕後,應除白化層及再次回火處理,回火溫度應比上一次回火低50°C.

GS-307是有如下優點:

- 高強度
- 高耐磨性
- 高衝擊性
- 變形度低
- 良好精光度

GS-307的應用範圍廣泛:

- 衝壓模具
- 切邊模具
- 剪切模具
- 裝飾模具
- 塑料模具

DIN - Code DIN : 1.2324 AISI 代號 S7	Delivery condition : Soft annealed max 230 HB 出廠狀態 經退火處理 最高硬度230 HB					
Chemical Composition 化學成分 : (Typical analysis in %) (典型分析結果%)	C 碳	Cr 鉻	Si 矽	Mo 鉬	Mn 錳	V 釩
	0.50	3.25	0.30	1.40	0.70	0.25

Steel properties GS-307 has high combination of toughness and wear resistance, together with ease of machining and heat treatment. Suitable for both cold and hot tool applications. When correctly heat treated, GS-307 has the capability of attaining Rc55/77 together with exceptionally high toughness.	鋼材特性 GS-307是一種高強度,高耐磨鉻鉬鋼,其容易熱處理及不易變形特性均適用於冷、熱模用途.如熱處理正確,GS-307可達到Rc55/57及超高強度.
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Application Pneumatic tools, hand and / or blacksmith's chisels, snap dies, trimming tools, cold piercing punches, plastic molding, shears.	用途 GS-307適用於氣動工具,手工具,刀具如鑿刀,裝修工具,冷鑽,剪刀,沖壓模具,其它五金模具及塑料模具等.
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Physical Properties 物理性能					
Coefficient of thermal expansion 熱膨脹系數 10 X m/(m • K)	^o C溫度	20-200 ^o C	20-400 ^o C		
		12.2	12.5		
Thermal conductivity 熱導率 W/(m • K)	^o C溫度	20 ^o C	200 ^o C	400 ^o C	
		28.9	30.0	31.0	
Compression strength at... 壓縮強度 approx.: σ_{db} in N/mm2 approx.: $\sigma_{D0.2}$ in N/mm2	^o C溫度	40HRC	50HRC	55HRC	58HRC
		1.76	2.06	2.45	2.6
		1.37	1.67	2.06	2.11

Density 密度 at 20 °C room temperature 7.75kg/dm³ 20 °C 室溫約值7.75kg/dm³

AISI	Gs編號	TOUGHNESS 韌性	HARDNESS 硬度
H13	GS-344 EFS		
S7	GS-307		
A2	GS-363		

The comparison of toughness and hardness 韌性及硬度比較表