

MIM H13 Injection Molding

Tool Steel Injection Molding

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Technical Data: MIM H13 Tool Steel

Product Description

H13 Tool Steel Injection Molding parts offer exceptional hardness, with a Rockwell C hardness of up to 50-60, ensuring durability and long-lasting performance. It makes them ideal for components subjected to high stress and wear, such as tooling inserts and cutting blades in power tools. Additionally, H13 Tool Steel MIM Sintered Parts boast excellent thermal conductivity, ensuring efficient heat dissipation, which is crucial for applications involving intense heat generation, like high-speed machining.

Moreover, their precise dimensional accuracy, with tolerances as tight as ± 0.1 mm, guarantees consistency and reliability in manufacturing processes. In the Consumer Electronics industry, where miniaturization and precision are paramount, these parts find applications in connectors and electrical contacts. Furthermore, H13 Tool Steel MIM Sintered Parts are corrosion-resistant and crucial for components exposed to harsh environmental conditions, like outdoor power tools.

- Applications Like:
- Switch Assemblies
- Driver Components
- Handheld Power Tool Gears
- Power Tool Saw Blade Mounts



Chemical Composition

Element	Carbon (C)	Chromium (Cr)	Manganese (Mn)	Silicon (Si)	Vanadium (V)	Molybdenum (Mo)
Composition (%)	0.32 - 0.45	4.75 - 5.50	0.20 - 0.50	0.80 max	1.10 - 1.75	1.10 - 1.75

Physical and Mechanical

Alloys	Status	Tensile Strength	Yield Strength	Impact Strength	Hardness	Young's Modulus	Poisson's Ratio	Elongation	Density
		Mpa	Mpa	J	HRC	Gpa	Ratio	% in 25.4 mm	g/cm ³
Typical Values	Heat Treated	1950	1700	30	48	215	0.28	4	7.75
Typical Values	As Sintered	950	700	10	32	195	0.28	18	7.75

Typical Properties

H13 Tool Steel MIM Sintered Switch Assemblies



H13 Tool Steel MIM Sintered Parts find valuable applications in switch assemblies, particularly in industries like Telecommunication and Consumer Electronics. Firstly, their exceptional hardness, reaching up to 48 HRC, ensures the longevity and durability of switch components, even under frequent use.

Moreover, H13 Tool Steel MIM Sintered Parts offer precise dimensional accuracy with tight tolerances, critical for switch assemblies, where any variation in component size can lead to malfunction. Additionally, their excellent thermal conductivity assists in efficiently dissipating heat generated during switch operations, preventing overheating and ensuring reliable performance.

Note

The above data are reference material science data. This data reference is not binding and is not considered as authoritative test data. If your material requirements are extremely precise, please contact our material engineers. Tel | +86 18926788217 | Web | www.newayprecision.com | Contact Neway



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Typical Properties

H13 Tool Steel MIM Sintered Power Tool Driver Components

H13 Tool Steel MIM Sintered Parts are excellent for power tool driver components due to their unique properties, especially in the Power Tools industry. Firstly, their remarkable hardness, with a Rockwell C hardness of up to 48 HRC, makes them exceptionally wear-resistant. Power tool driver components must endure continuous mechanical stress and friction during operation, ensuring long-term durability.

Furthermore, the precise dimensional accuracy and tight tolerances of H13 Tool Steel MIM Sintered Parts are essential for maintaining the precision and reliability of power tool mechanisms. These components can withstand high levels of mechanical stress while maintaining their shape and integrity, contributing to power tools' overall efficiency and safety.



H13 Tool Steel MIM Sintered Handheld Power Tool Gears



H13 Tool Steel MIM Sintered Parts are exceptionally well-suited for handheld power tool gears, offering critical advantages in the Power Tools industry. Firstly, their high hardness, typically reaching 48 HRC, makes them ideal for gears subjected to heavy loads and high-speed rotations. This exceptional hardness ensures minimal wear over time, increasing the lifespan of the gear components.

Additionally, the precise dimensional accuracy of H13 Tool Steel MIM Sintered Parts ensures that the gears maintain their shape and fit precisely, reducing friction and improving overall efficiency in handheld power tools. Moreover, their excellent thermal conductivity helps dissipate heat generated during prolonged tool operation, preventing overheating and potential damage to the gears.

H13 Tool Steel MIM Sintered Power Tool Saw Blade Mounts

H13 Tool Steel MIM Sintered Parts are exceptionally well-suited for power tool saw blade mounts, offering numerous advantages in the Power Tools industry. Firstly, their outstanding hardness, often reaching 48 HRC, makes them ideal for saw blade mounts that must endure substantial mechanical stress and abrasion during cutting operations. This hardness ensures longevity and minimizes wear, contributing to extended blade life.

Moreover, H13 Tool Steel MIM Sintered Parts provide precise dimensional accuracy with tight tolerances, critical for securing saw blades precisely in power tools. This precision ensures that the blade is perfectly aligned, reducing vibration and enhancing the quality of cuts. Additionally, their robust thermal conductivity aids in efficient heat dissipation during prolonged cutting tasks, preventing overheating and ensuring the safety and performance of the saw blade mounts.



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