MIM W-Cu Injection Molding

Tungsten Alloy Injection Molding

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Technical Data: MIM W-Cu Tungsten Alloy

Product Description

MIM W-Cu (Tungsten-Copper) MIM-Sintering LED lighting accessories are precision components designed to enhance the performance and reliability of LED lighting systems. These accessories leverage the unique properties of tungsten and copper to meet the specific needs of LED applications.

Typical applications of MIM W-Cu MIM-Sintering LED lighting accessories include:
Heat Sinks: MIM W-Cu heat sinks efficiently dissipate heat generated by LEDs, preventing overheating and ensuring prolonged LED lifespan.

Electrical Contacts: These accessories provide reliable electrical connections within LED fixtures, contributing to consistent light output.

LED Mounting Bases: MIM W-Cu components serve as stable and durable bases for mounting LED chips in various lighting fixtures.

Chemical Composition

Element	Tungsten (W)	Copper (Cu)
Composition (%)	85	15

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/cm³
MIM W-Cu	-	700	550	1.5	26	280	0.3	4	15

Typical Properties

MIM-sintered W-Cu (Tungsten-Copper) Heat Sinks

MIM-sintered W-Cu (Tungsten-Copper) heat sinks are crucial in LED lighting accessories. These precision-crafted heat sinks are designed to efficiently dissipate heat generated by LED fixtures, ensuring optimal performance and extending the lifespan of the LEDs. Their intricate designs, made possible through MIM-sintering, allow for the creation of heat sinks with precise fin structures and large surface areas, enhancing heat dissipation capabilities.

The benefits of MIM-sintered W-Cu heat sinks in LED lighting accessories are manifold. They provide exceptional thermal conductivity, efficiently transferring heat away from LEDs, which is essential for maintaining consistent brightness and preventing overheating. Their durability and resistance to high temperatures also make them ideal for LED fixtures, ensuring long-lasting and reliable performance.

Note

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Typical Properties

MIM-Sintering MIM W-Cu Electrical Contacts

MIM-sintered W-Cu (Tungsten-Copper) electrical contacts are vital in LED lighting accessories. These precisely crafted contacts, created through the MIM-sintering process, offer exceptional electrical conductivity and reliability.

The benefits of MIM-sintered W-Cu electrical contacts in LED lighting accessories are significant. Their high electrical conductivity minimizes resistive losses, allowing for the efficient transmission of electrical signals within the lighting system. Their durability and resistance are ideal for prolonged use in LED fixtures. Overall, MIM-sintered W-Cu electrical contacts play a crucial role in maintaining the functionality and reliability of LED lighting, contributing to energy-efficient and long-lasting illumination solutions.

MIM-Sintering MIM W-Cu LED Mounting Bases

MIM-sintered W-Cu (Tungsten-Copper) LED mounting bases are essential in LED lighting accessories. These precision-crafted bases provide a stable and thermally efficient foundation for mounting LED chips in various lighting fixtures. Leveraging the benefits of tungsten's high thermal conductivity and copper's excellent electrical conductivity, these bases enhance the performance and reliability of LED lighting systems.

The key benefits of MIM-sintered W-Cu LED mounting bases lie in their exceptional thermal management capabilities. They efficiently dissipate heat generated by LEDs, preventing overheating and ensuring optimal operating conditions. This, in turn, extends the lifespan of LED chips and maintains consistent light output, making them a vital element in high-performance LED lighting solutions for both residential and industrial applications.

MIM-Sintering MIM W-Cu Lighting Housing Components

MIM-sintered W-Cu (Tungsten-Copper) lighting housing components are integral to LED lighting accessories. These precision-engineered components serve as the structural foundation for LED fixtures, offering a range of benefits that contribute to the efficiency and durability of LED lighting systems.

The key advantages of using MIM-sintered W-Cu lighting housing components include exceptional thermal conductivity and mechanical strength. Tungsten Copper's high thermal conductivity allows efficient heat dissipation, which is crucial for maintaining LED performance and prolonging its lifespan. Additionally, the material's robustness ensures the structural integrity of lighting fixtures, even in demanding environments.

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