

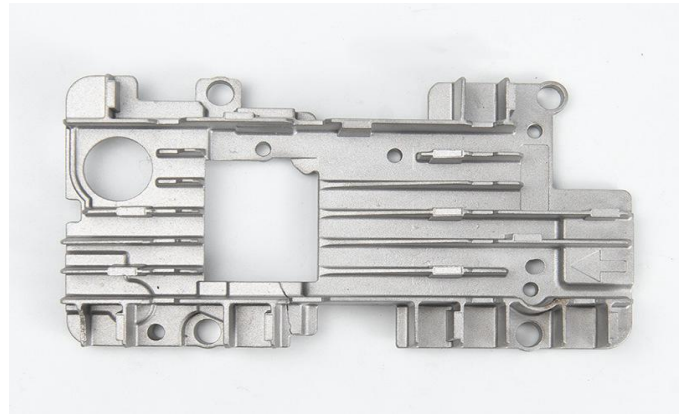
Technical Data: Cast Aluminum A380

Product Description

One notable application of A380 aluminum die casting is in the automotive industry, where the alloy's lightweight yet robust characteristics are highly advantageous. Components such as engine parts, transmission housings, and structural components benefit from the precision and reliability offered by A380 casting.

Additionally, A380 finds application in sand casting, another method within precision casting. Sand casting is a more traditional but practical approach, allowing for creating more extensive and complex parts. The versatility of the A380 makes it suitable for this process, providing durability and structural integrity to castings produced through sand casting.

Gravity casting, another technique under precision casting, is also compatible with A380 aluminum alloy. This method relies on the force of gravity to fill the mold, ensuring a controlled and consistent casting process. A380's excellent flowability at elevated temperatures makes it an excellent choice for gravity casting, enabling the production of high-quality components with minimal defects.



Chemical Comparison

Aluminum (Al)	Silicon (Si)	Copper (Cu)	Iron (Fe)	Manganese (Mn)	Nickel (Ni)	Zinc (Zn)	Magnesium (Mg)	Titanium (Ti)	Other Elements
86.1 - 89.1	7.5 - 9.5	1.0 max	0.6 max	0.5 max	0.5 max	0.35 max	0.1 max	0.15 max	0.5 max each

Physical and Mechanical Properties

Property	Tensile Strength (MPa)	Yield Strength (MPa)	Hardness (Brinell)	Shear Strength (MPa)	Impact Strength (J)	Fatigue Strength (MPa)	Thermal Conductivity (W/m·K)	Density (g/cm³)	Melting Range (°C)
Value	324	214	80	173	7.5	97	160	2.74	570 - 640

Typical Applications

Aluminum A380 Casting Household Appliances



Aluminum A380 casting offers many benefits when applied to household appliances, making it a preferred choice for manufacturers seeking efficiency, durability, and aesthetic appeal. Firstly, its lightweight nature proves advantageous in household appliances, enabling easier handling during transportation and installation. This characteristic reduces the overall weight of appliances and enhances their portability, making them more user-friendly for consumers.

Additionally, A380's inherent corrosion resistance ensures longevity, especially in appliances exposed to varying environmental conditions, such as refrigerators, air conditioners, and washing machines. This resistance safeguards against rust and deterioration, prolonging the lifespan of household devices.

Secondly, the casting capabilities of Aluminum A380 allow manufacturers to create intricate designs and complex shapes, providing a seamless and aesthetically pleasing appearance to household appliances. The alloy's ability to achieve fine details and smooth finishes enhances the visual appeal of products like kitchen appliances, vacuum cleaners, and coffee machines, contributing to their market attractiveness. Furthermore, the A380's formability facilitates the integration of different components into cohesive and sleek designs, optimizing both functionality and visual appeal in household appliances.

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



Cast Aluminum A380

Aluminum Alloy for Casting

NEWAY PRECISION WORKS

NewayPrecision

www.newayprecision.com

Aluminum A380 Casting Power Tool Parts

Aluminum A380 casting offers a multitude of benefits when employed in the manufacturing of power tool parts. Firstly, the alloy's lightweight nature significantly contributes to the overall ergonomics and user-friendliness of power tools. Operators can experience reduced fatigue during prolonged use, enhancing efficiency and safety on the job. This weight advantage doesn't compromise strength, as the A380 provides excellent structural integrity, ensuring the durability and reliability required for power tool components.

Secondly, the precision casting capabilities of Aluminum A380 play a pivotal role in creating intricate and complex shapes for power tool parts. It allows for designing and producing custom components with tight tolerances, ensuring optimal performance. The alloy's fluidity during the casting process facilitates the formation of detailed features, contributing to power tools' overall functionality and precision. Whether it's intricate housing designs or components with specific mechanical requirements, A380 casting allows for the customization necessary to meet the diverse needs of power tool applications.



Aluminum A380 Casting Lighting Components



Aluminum A380 casting offers several distinct benefits when used for manufacturing lighting components. Firstly, its lightweight nature contributes to the overall efficiency and ease of installation in lighting fixtures. This characteristic is particularly advantageous in the lighting industry, where minimizing weight without compromising structural integrity is crucial. The reduced weight of A380 castings simplifies handling during assembly and enhances energy efficiency in applications such as overhead lighting fixtures.

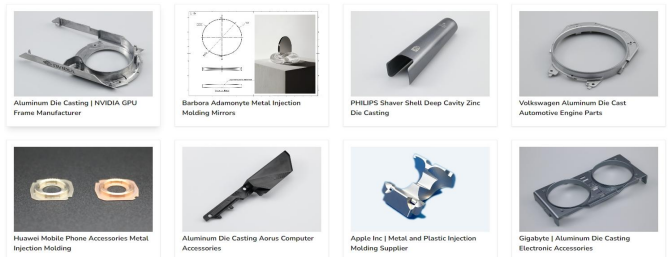
Secondly, A380's excellent thermal conductivity ensures effective heat dissipation in lighting applications. It is a critical advantage, especially in fixtures where heat management is essential for maintaining the longevity and performance of light sources. The alloy's ability to efficiently transfer heat away from the light-emitting components helps prevent overheating and extends the lifespan of bulbs or LEDs. This feature is precious in outdoor lighting fixtures or enclosed spaces where heat buildup could be a concern.

Industry Solution Case Study

Custom parts manufacturing is crucial across diverse industries, and Neway excels in meeting their unique demands. Neway mainly provides customized parts in Aerospace, Medical Devices, Automotive, Telecommunication, Consumer Electronics, Lighting, E-Mobility, Power Tools, Energy, and Locking System Parts Manufacturing. Neway's precision and versatility make it a top choice for custom parts manufacturing across these industries, aligning seamlessly with their specific needs.

Aerospace
Automotive
Consumer Electronics
E-Mobility
Energy

Medical Device
Telecommunication
Lighting Solution
Power Tools
Locking System



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

