

SL METALS CORPORATION

Secondary Aluminum Alloy ADC12

This reference document. ADC12 is the most widely used secondary aluminum die-casting alloy in Japan and across Asia-Pacific industrial markets. SL Metals Corporation supplies ADC12 ingots produced to JIS H 2118 specification, with full Certificate of Analysis (CoA) per shipment. Our ADC12 is suitable for direct charging into cold-chamber die-casting machines and is widely used in automotive, electronics, and industrial manufacturing.

Secondary Aluminum Alloy ADC12

Chemical Composition

All values in weight percent (wt.%). Actual CoA provided per shipment.

Element	Range / Limit
Silicon (Si)	9.6 – 12.0 %
Copper (Cu)	1.5 – 3.5 %
Iron (Fe)	≤ 1.3 %
Zinc (Zn)	≤ 1.0 %
Manganese (Mn)	≤ 0.50 %
Magnesium (Mg)	≤ 0.30 %
Nickel (Ni)	≤ 0.50 %
Lead (Pb)	≤ 0.20 %
Tin (Sn)	≤ 0.20 %
Titanium (Ti)	≤ 0.30 %
Aluminum (Al)	Balance

Mechanical Properties

Average results from 10 test pieces per production lot.

Property	Typical Value
Tensile Strength	214 MPa
Proof Stress (0.2%)	148 MPa
Elongation	1.7 %
Hardness	76 HB

Packaging & Ingot Dimensions

Parameter	Specification
Ingot Weight	5.0 kg
Ingot Dimensions	700 × 100 × 500 mm
Bundle Weight	500 kg (or to customer requirement)
Handling	Forklift-compatible bundling

Typical Applications

ADC12 is the dominant die-casting alloy for automotive and electronics markets across Japan, China, Malaysia, Indonesia, and other destinations. Common applications include: Engine covers & housings, Transmission components electronic, Pump bodies, Bracket assemblies, Consumer electronics parts, and etc.

International Standard Equivalents

Region	Standard	Designation
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Japan	JIS H 2118	ADC12
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Europe	EN 1706	AC-46000 (AlSi12Cu1Fe)
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USA	ASTM B85	A383 / 383
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China	GB/T 15115	YL113
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SL Metals can supply to customer-specific chemistry requirements. Custom tighter tolerances available upon request.

Request a Quote

To receive a competitive offer, please provide:

- Alloy grade or local standard designation
- Quantity (MT or FCL)
- Destination port
- Packaging preference
- Company introduction



Contact & Quote Requests

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