

Zinc Die Casting Alloys (ZAMAK)

Technical Datasheet

Uses

These alloys are ideal for mass production of strong accurate components e.g. by hot chamber die casting process.

Characteristics

Chemical composition* (EN1774) Guaranteed analysis (in %)	ZAMAK 2 ZL2/ZL0430/ZnAl4Cu3	ZAMAK 3 ZL3/ZL0400/ZnAl4	ZAMAK 5 ZL5/ZL0410/ZnAl4Cu1	ZA8 ZL8/ZL0810 /ZnAl8Cu1
Al	3.8-4.2	3.8-4.2	3.8-4.2	8.2 - 8.8
Cu	2.7-3.3	≤ 0.03	0.7 - 1.1	0.9 - 1.3
Mg	0.035 - 0.06	0.035 - 0.06	0.035 - 0.06	0.02 - 0.03
Pb	≤ 0.003	≤ 0.003	≤ 0.003	≤ 0.005
Fe	≤ 0.020	≤ 0.020	≤ 0.020	≤ 0.035
Cd	≤ 0.003	≤ 0.003	≤ 0.003	≤ 0.005
Sn	≤ 0.001	≤ 0.001	≤ 0.001	≤ 0.002
Si	≤ 0.02	≤ 0.02	≤ 0.02	≤ 0.035
Ni	≤ 0.001	≤ 0.001	≤ 0.001	≤ 0.001
Physical data	ZAMAK 2 ZL2/ZL0430/ZnAl4Cu3	ZAMAK 3 ZL3/ZL0400/ZnAl4	ZAMAK 5 ZL5/ZL0410/ZnAl4Cu1	ZA 8 ZL8/ZL0810/ZnAl8Cu1
Density (kg/dm ³ at 20°C)	6.8	6.6	6.7	6.3
Solidification range (°C)	379-390	381-387	380-386	375-404
Shrinkage in ‰	4 – 5	4 – 5	4 – 5	8
Lin. thermal expansion (coef./°C)	27.8 x 10-6	27.4 x 10-6	27.4 x 10-6	23.2 x 10-6
Electrical conductivity (%IACS)	25	27	26	27.7
Standard	ZAMAK 2	ZAMAK 3	ZAMAK 5	ZA 8
EN1774 ISO 301 AS1881 JIS H2201 ASTM B240	ZL2/ZL0430/ZnAl4Cu3 Alloy 2 / Z35540	ZL3/ZL0400/ZnAl4 Zn Al 4 Zn Al 4 Alloy 3/ Z33521	ZL5/ZL0410/ZnAl4Cu1 Zn Al 4 Cu1 Zn Al 4 Cu 1 Alloy 5 / Z35530	ZL8/ZL0810/ZnAl8Cu1 ZA-8 / Z 35635

• Other alloys (such as ZK4 and ZK F) are also available based upon commercial agreement

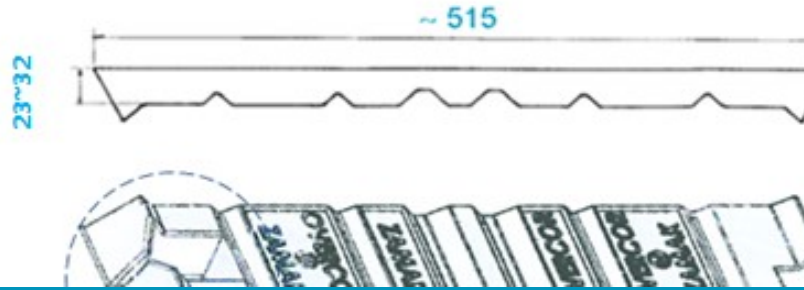
Package

Trademark	OVERCOR ZAMAK 	Claw end ingots
Ingot weight Ingots per bundle Packing/Weight Feet/pallet	8.3 kg 72 + 4 strapped bundles of about 650 kg zinc alloy feet	6.0 kg 96 strapped bundles of about 580 kg wooden pallet

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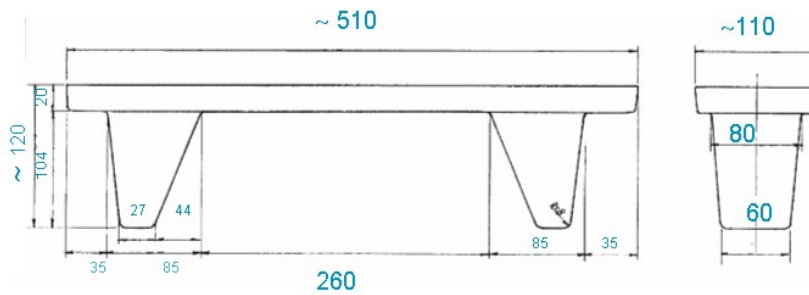
Slab (72 slabs per bundle)
Zamak OVERCOR

Nominal mass 8.3 kg
Dimensions 515 x 120 x 40



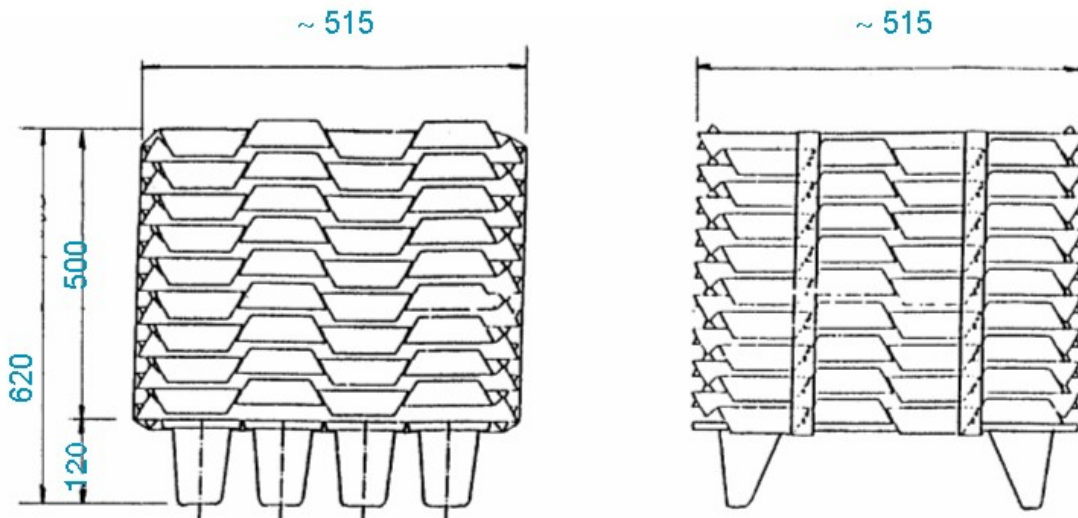
Foot (4 per bundle)
Zamak OVERCOR

Nominal mass 13.6 kg
Dimensions 510 x 110 x 120



Slab bundle (72 slabs + 4 feet per bundle)
Zamak Overcor

Nominal mass 650 kg
Dimensions 515 x 515 x 620

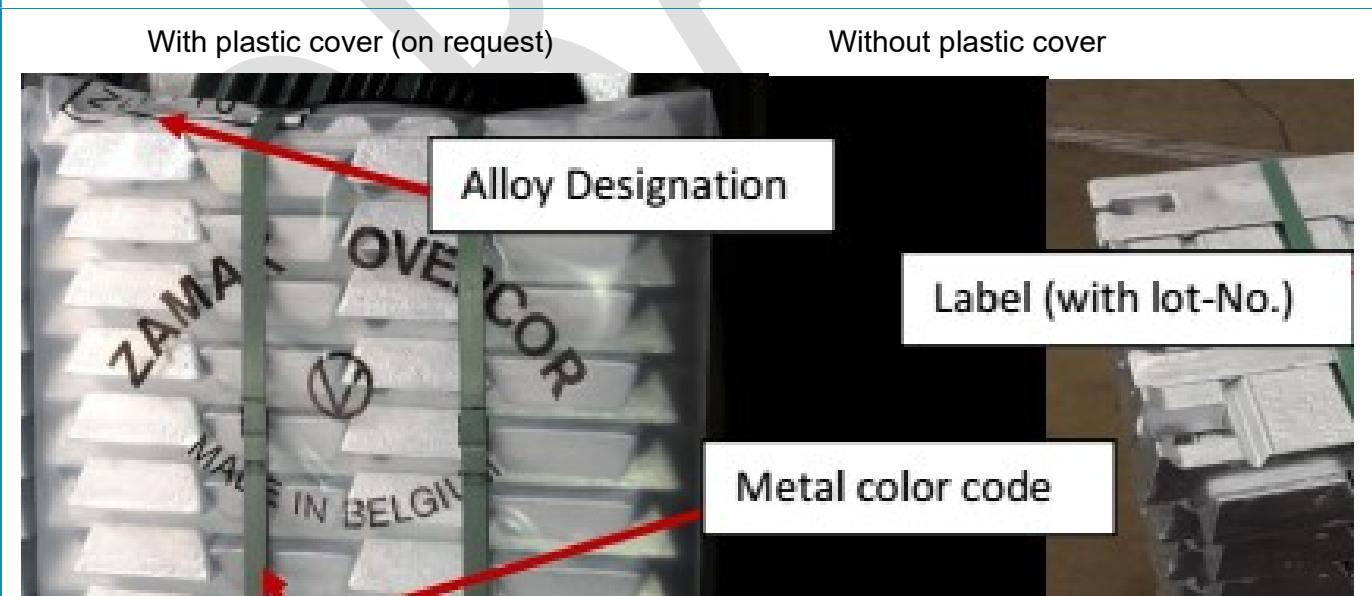


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Label, ingot marking and analysis sample



Ingot and bundle reference : Overcor®



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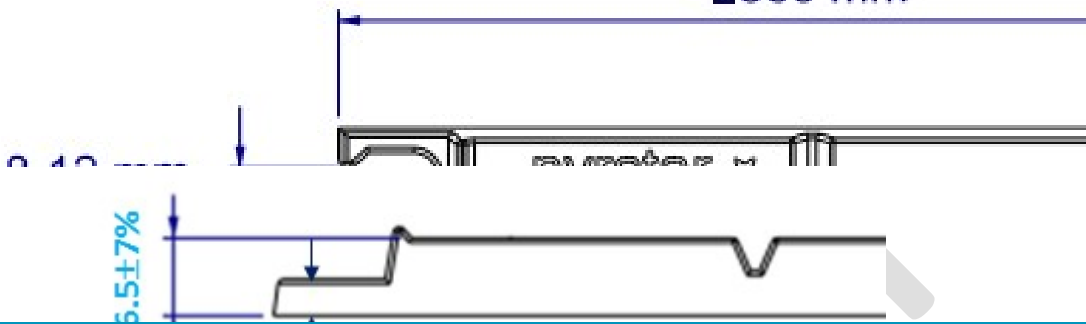
Technical Datasheet

Claw end ingot

Nominal mass 6.0 kg
Dimensions 560 x 50 x 54



±560 mm



Ingot bundle (96 slabs per bundle)
Claw end ingots

Nominal mass 580 kg
Dimensions 560 x 560 x 568

