

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 Cu Mg Pb Fe Cd Sn Si Ni	3.8-4.2 2.7-3.3 0.035 - 0.06 ≤ 0.003 ≤ 0.020 ≤ 0.003 ≤ 0.001 ≤ 0.02 ≤ 0.001	3.8-4.2 ≤ 0.03 0.035 - 0.06 ≤ 0.003 ≤ 0.020 ≤ 0.003 ≤ 0.001 ≤ 0.02 ≤ 0.001	3.8-4.2 0.7 - 1.1 0.035 - 0.06 ≤ 0.003 ≤ 0.020 ≤ 0.003 ≤ 0.001 ≤ 0.02 ≤ 0.001	8.2 - 8.8 0.9 - 1.3 0.02 - 0.03 ≤ 0.005 ≤ 0.035 ≤ 0.005 ≤ 0.002 ≤ 0.035 ≤ 0.001
Typical analysis (in %) (reference 2008)	ZAMAK 2 ZL2/ZL0430 ZnAl4Cu3	ZAMAK 3 ZL2/ZL0400 ZnAl4	ZAMAK 5 ZL5/ZL0410 ZnAl4Cu1	ZA 8 ZL8/ZL0810 ZnAl8Cu1
Al Cu Mg Pb Fe Cd Sn Si Ni	3.99826 2.89784 0.04271 0.00271 0.00305 < 0.0002 < 0.001 < 0.02 < 0.001	4.08637 0.00020 0.04514 0.00170 0.00216 < 0.0002 < 0.001 < 0.02 < 0.001	3.99826 0.83732 0.04402 0.00183 0.00238 < 0.0002 < 0.001 < 0.02 < 0.001	8.42138 1.06345 0.02286 0.00218 0.00421 < 0.0003 < 0.001 < 0.015 < 0.001
Physical data	ZAMAK 2 ZL2/ZL0430 ZnAl4Cu3	ZAMAK 3 ZL2/ZL0400 ZnAl4	ZAMAK 5 ZL5/ZL0410 ZnAl4Cu1	ZA 8 ZL8/ZL0810 ZnAl8Cu1
Density (kg/dm ³ at 20 °C) Solidification range (°C) Shrinkage in % Lin. thermal expansion (coef./°C) Electrical conductivity (%IACS)	6.8 379-390 4 - 5 27.8 x 10 ⁻⁶ 25	6.6 381-387 4 - 5 27.4 x 10 ⁻⁶ 27	6.7 380-386 4 - 5 27.4 x 10 ⁻⁶ 26	6.3 375-404 8 23.2 x 10 ⁻⁶ 27.7

Package

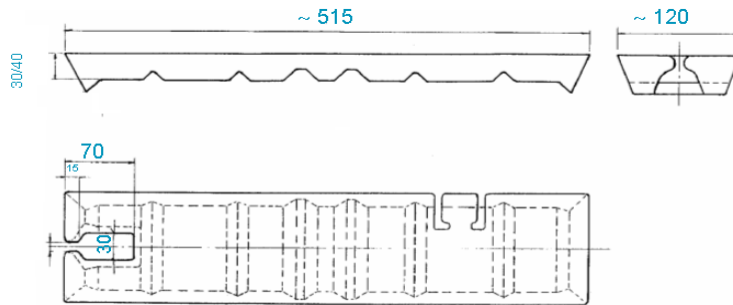
Trademark	OVERCOR  ZAMAK	Claw end ingots
Ingot weight Ingots per bundle Packing/Weight Feet/pallet	8.3 kg 72 + 4 strapped bundles of about 650 kg zinc alloy feet	6.0 kg 96 strapped bundles of about 580 kg wooden pallet

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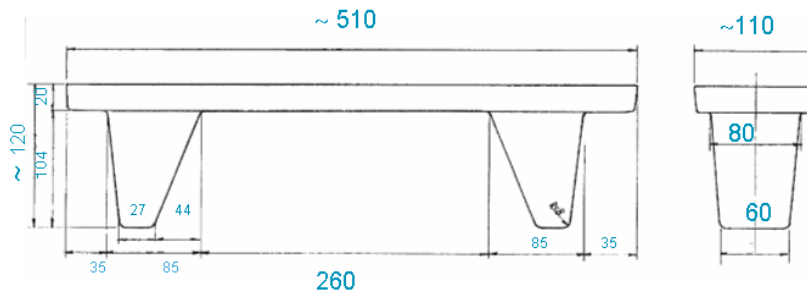
Slab (72 slabs per bundle)
Zamak OVERCOR

Nominal mass 8.3 kg
Dimensions 515 x 120 x 40



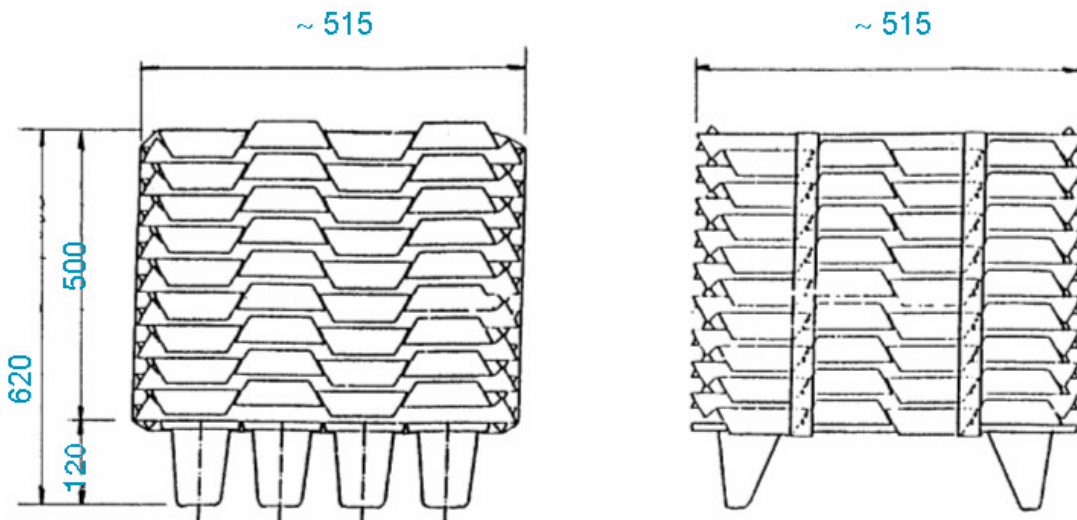
Foot (4 per bundle)
Zamak OVERCOR

Nominal mass 13.6 kg
Dimensions 510 x 110 x 120



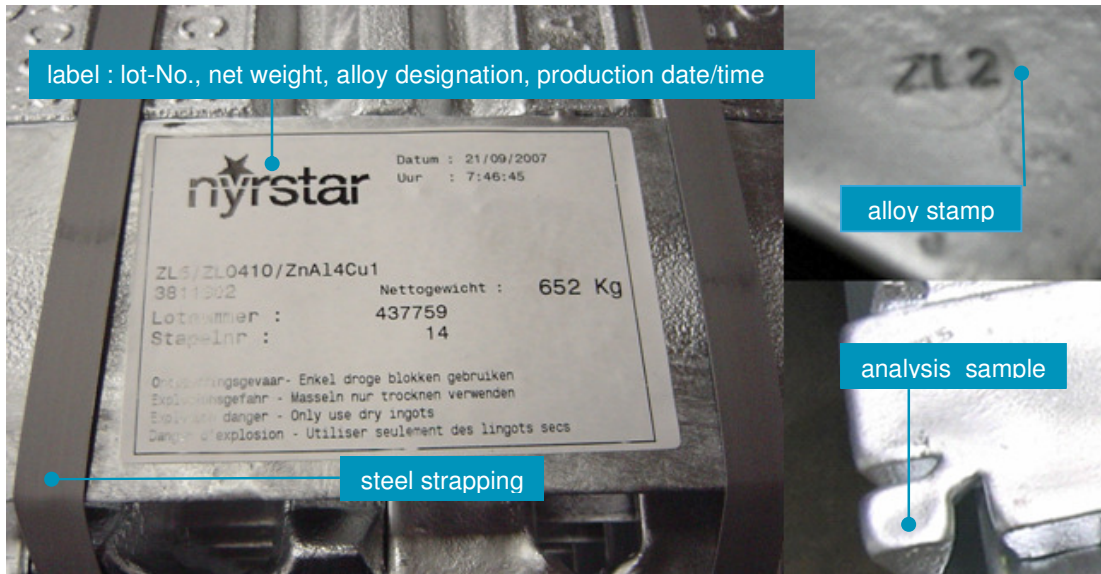
Slab bundle (72 slabs + 4 feet per bundle)
Zamak Overcor

Nominal mass 650 kg
Dimensions 515 x 515 x 620

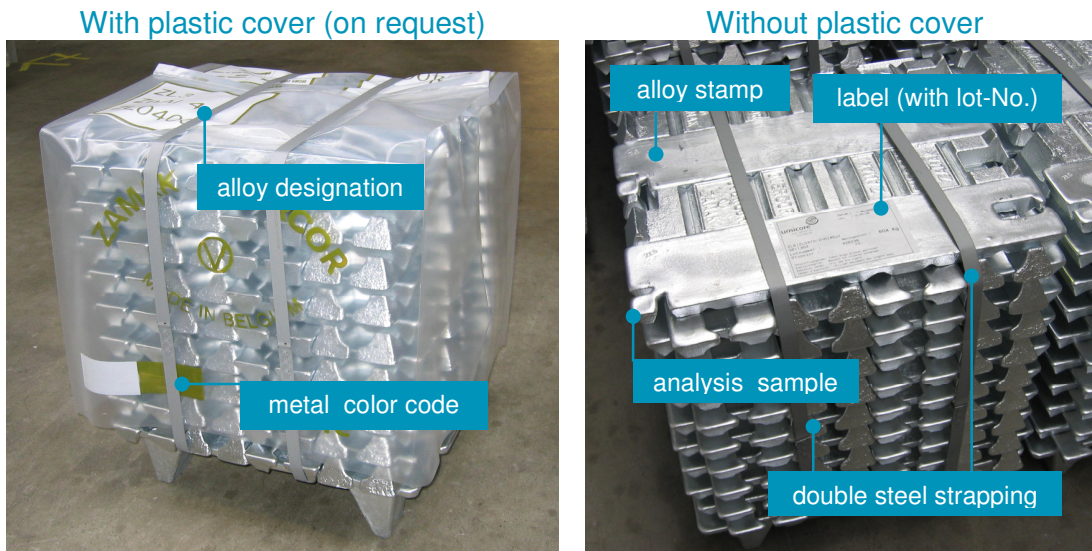


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Label, ingot marking and analysis sample



Ingot and bundle reference : Overcor[®]

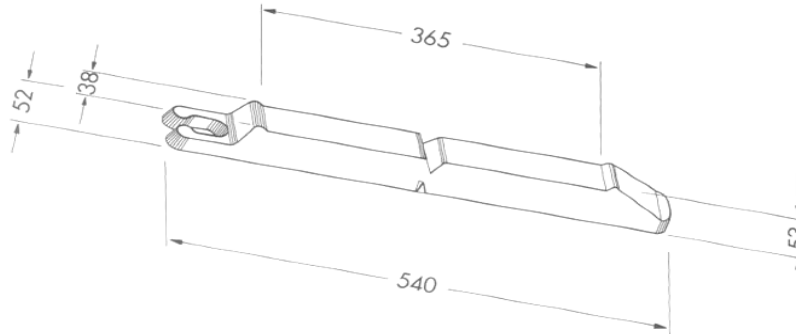


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Claw end ingot

Nominal mass 6.0 kg
Dimensions 540 x 50 x 52



Ingot bundle (96 slabs per bundle) Claw end ingots

Nominal mass 580 kg
Dimensions 540 x 540 x 670

