

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 2015)	ZAMAK 2 ZL2/ZL0430/ZnAl4Cu3	ZAMAK 3 ZL3/ZL0400/ZnAl4	ZAMAK 5 ZL5/ZL0410/ZnAl4Cu1	ZA 8 ZL8/ZL0810 /ZnAl8Cu1
Al Cu Mg Pb Fe Cd Sn Si Ni	4.05 2.90 0.043 0.0022 0.0026 < 0.0002 < 0.001 < 0.02 < 0.001	4.03 0.0002 0.045 0.0018 0.002 < 0.0002 < 0.001 < 0.02 < 0.001	4.05 0.83 0.044 0.0019 0.0023 < 0.0002 < 0.001 < 0.02 < 0.001	8.52 1.06 0.023 0.0021 0.0040 < 0.0003 < 0.001 < 0.015 < 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) 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
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

Package

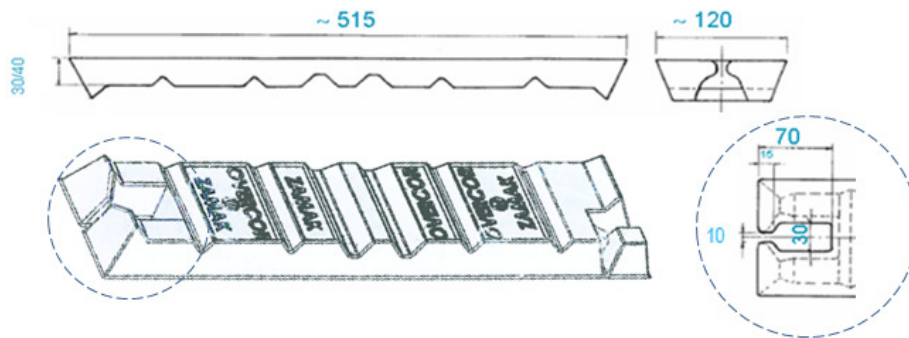
Trademark	OVERCOR  ZAMAK	Claw end ingots
Ingot weight Ingots per bundle Packing/Weight Feet/pallet	8.3 kg 72 + 4 strapped bundles of about 650 kg zinc alloy feet	6.0 kg 96 strapped bundles of about 580 kg wooden pallet

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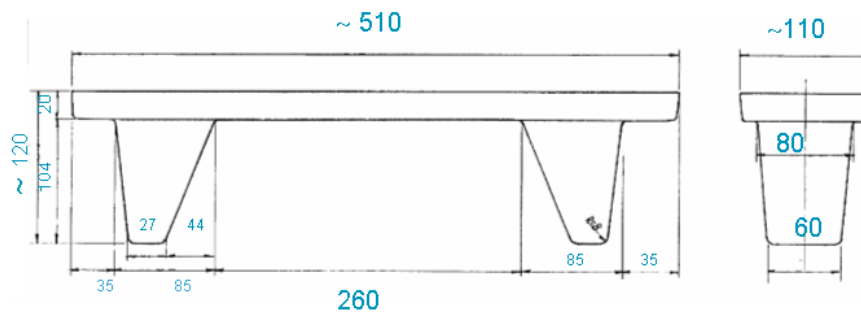
Slab (72 slabs per bundle)
Zamak OVERCOR

Nominal mass 8.3 kg
Dimensions 515 x 120 x 40



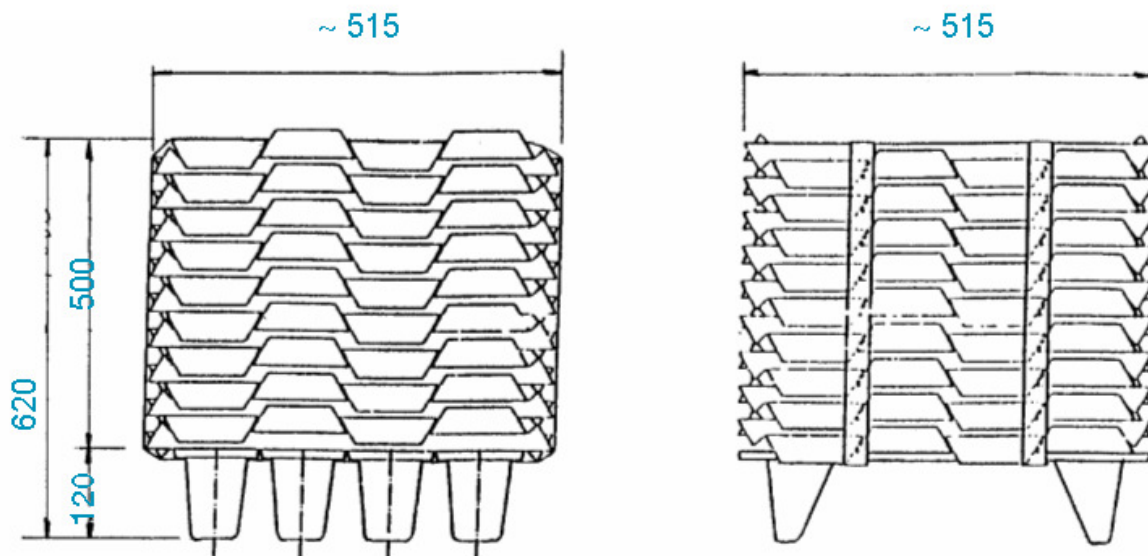
Foot (4 per bundle)
Zamak OVERCOR

Nominal mass 13.6 kg
Dimensions 510 x 110 x 120



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

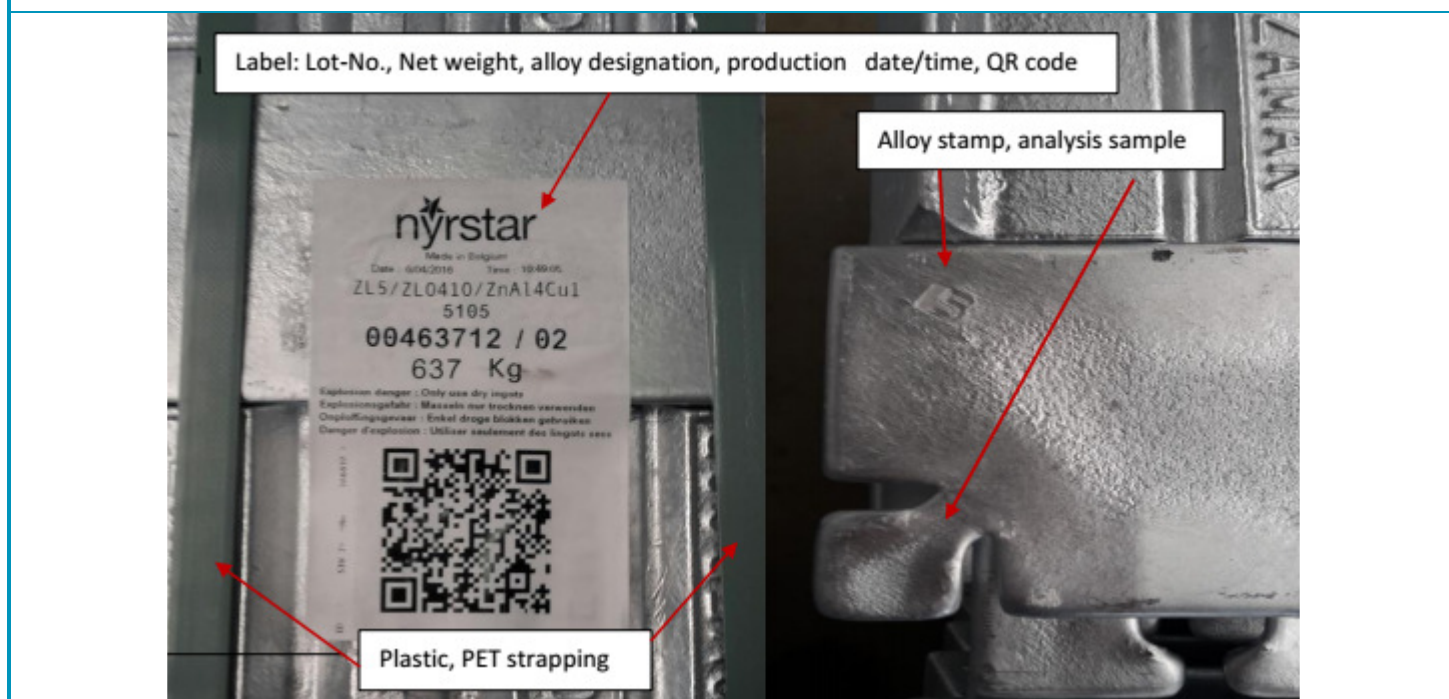
Nominal mass 650 kg
Dimensions 515 x 515 x 620



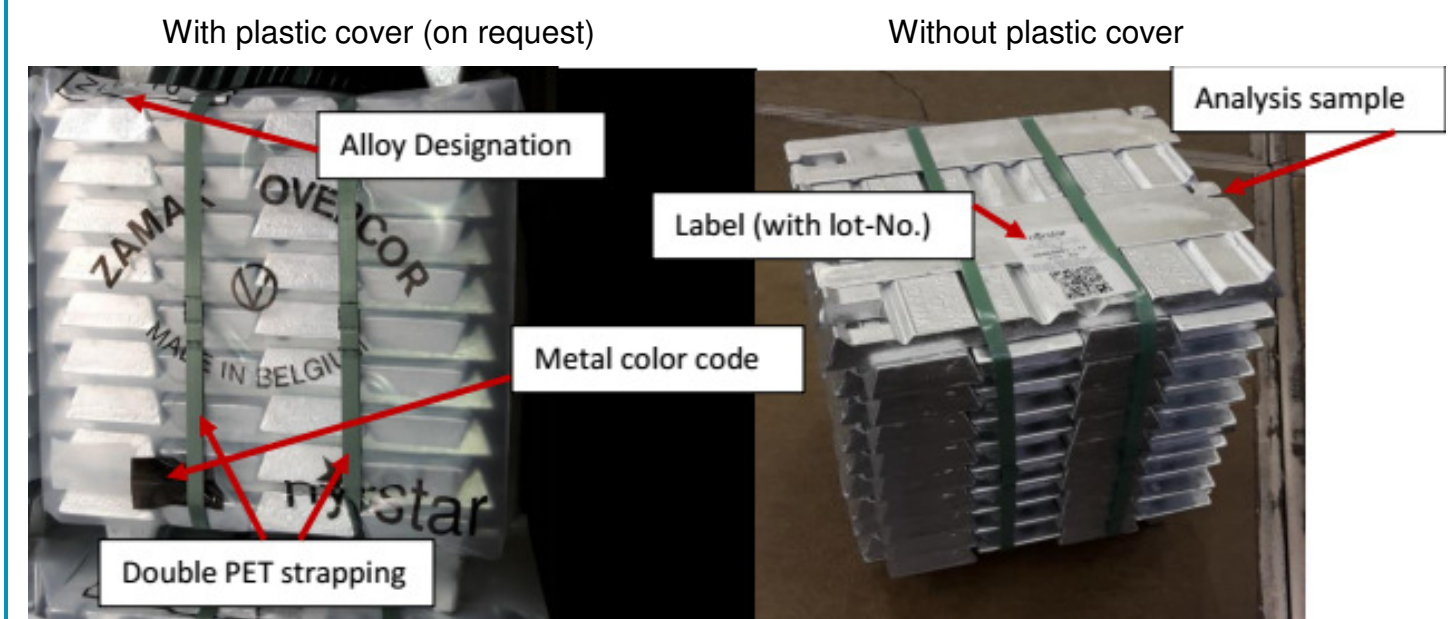
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Label, ingot marking and analysis sample



Ingot and bundle reference : Overcor[®]

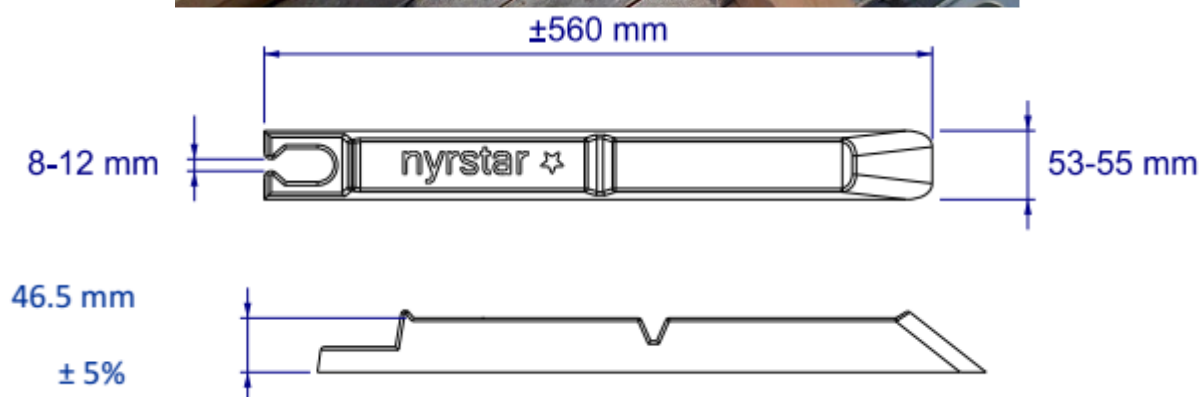


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Claw end ingot

Nominal mass 6.9 kg
Dimensions 560 x 50 x 54



Ingot bundle (96 slabs per bundle) Claw end ingots

Nominal mass 670 kg
Dimensions 560 x 560 x 568

