



30 Zn Zinc 65.409	2 8 18 2	13 Al Aluminium 26.981	2 8 3	29 Cu Copper 63.546	2 8 18 1
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ZINC ALLOY ZnAl11Cu1

Producer: NFM-CRAMET N.V. • B-9770 Kruishoutem

Producer's mark:

Colour code: white/orange

1) ZINC ALLOY according to EN1774 : 1997 – Standard for foundry purposes, ingot and liquid

- Alloy symbol: ZnAl11Cu1
- Alloy number: ZL1110
- Short designation: ZL12

Chemical composition of alloy ingot and liquid (in % mass fraction):

Al Aluminium	Cu Copper	Mg Magnesium	Fe Iron	Pb Lead	Cd Cadmium	Sn Tin	Ni Nickel	Si Silicon	Zn Zinc
10.8 11.5	0.5 1.2	0.02 0.03	0.05 max.	0.005 max.	0.005 max.	0.002 max.	–	0.05 max.	balance

2) ZINC ALLOY according to EN12844 : 1998 – Standard for castings

- Alloy number: ZP1110
- Short designation: ZP12

Chemical composition of castings (in % mass fraction):

Al Aluminium	Cu Copper	Mg Magnesium	Fe Iron	Pb Lead	Cd Cadmium	Sn Tin	Ni Nickel	Si Silicon	Zn Zinc
10.5 11.5	0.5 1.2	0.015 0.03	0.07 max.	0.006 max.	0.006 max.	0.003 max.	0.02 max.	0.06 max.	balance

3) PHYSICAL AND MECHANICAL PROPERTIES AT 20 °C:

guidance mid-range data for pressure die castings

- Tensile strength: 400 MPa
- Elongation A (50 mm): 5%
- Brinell Hardness HBS 500-10-30: 100
- Impact energy (unnotched 6.3 x 6.3 mm bar): 30 J
- Youngs modulus: 82 GPa
- 0.2% Yield strength: 300 MPa
- Density: 6 kg/dm³
- Melting range: 377 to 432 °C
- Coefficient of thermal expansion: 24 µm/(m·K)
- Thermal conductivity (18 °C): 116 W/(m·K)
- Electrical conductivity (10 °C): 28% IACSS

Remarks: 1 MPa equivalent to 1 N/mm²
1 GPa equivalent to 1 kN/mm²
100% IACS equivalent to 58S-m/mm²