

Casting material

PERALUMAN[®] - 50 / PERALUMAN[®] - 56

EN AB-AIMg5, EN AB-51300

EN AB-AIMg5(Si), EN AB-51400

PERALUMAN[®] - 50 and 56 are aluminium-magnesium casting alloys made from virgin aluminium, which can be processed well in sand and coquille casting. The processing of PERALUMAN[®] - 56 in die casting is possible, but use in low-pressure coquille casting is not recommended. PERALUMAN[®] - 50 and 56 place high demands on the casting technology. PERALUMAN[®] - 50 and 56 are excellently machinable and exhibit an outstanding shine after mechanical polishing. The alloys are excellently suited for decorative anodic oxidation. The alloys are therefore particularly used for decorative parts of internal and external architecture (coatings), household devices and equipment in the food industry.

Composition in % by mass:

PERALUMAN[®] - 50

Si	Fe	Cu	Mn	Mg	Zn	Ti
0.30	0.15	0.02	0.01-0.4	4.8 – 5.5	0.10	0.01-0.15

PERALUMAN[®] - 56

Si	Fe	Cu	Mn	Mg	Zn	Ti
0.9 – 1.3	0.15	0.02	0.01-0.4	4.8 – 5.5	0.10	0.01-0.15

Both materials contain beryllium as an additional alloying element.

Mechanical properties:

The values not in parentheses were determined on separately cast test rods.

The values in parentheses can be achieved in cast parts of up to 20 mm using an appropriate melting and casting technique.

PERALUMAN[®] - 50

Process condition	0.2% Yield strength $R_{p0.2}$ [N/mm ²]	Tensile strength R_M [N/mm ²]	Ductile yield A [%]	Brinell hardness HB
Coquille F	100 – 140 (100)	200 – 260 (180)	10 – 25 (8)	60 – 75 (55)
Sand F	100 – 120 (90)	190 – 250 (170)	10 – 15 (8)	55 – 70 (50)

PERALUMAN[®] - 56

Process condition	0.2% Yield strength $R_{p0.2}$ [N/mm ²]	Tensile strength R_M [N/mm ²]	Ductile yield A [%]	Brinell hardness HB
Coquille F	110 – 150 (100)	180 – 240 (150)	3 – 5 (3)	65 – 85 (60)
Coquille T6	110 – 160 (110)	210 – 260 (200)	3 – 18(5)	75 – 85 (70)
Sand F	110 – 130 (100)	160 – 200 (140)	3 – 4 (2)	60 – 80 (55)
Sand T6	110 – 160 (110)	180 – 220 (160)	3 – 4 (2)	70 – 80 (65)

Alloys **PERALUMAN®-50** and **PERALUMAN®-56** are delivered exclusively in the form of ingots produced through horizontal continuous casting (HCC). In this way, we offer the following advantages:

- Less scrap through maximum metal purity and uniformity
- Clean ingots without oxide inclusions
- No hard non-metallic inclusions
- Low gas content in the ingots thanks to inline degassing during production
- Lower costs through
 - Reduced metal loss during melting
 - Good and safe stackability
 - Low space requirements thanks to compact pig bunches

Contact: