

Casting material

SILAFONT[®] - 34

EN AB-AISi10Mg(a) / EN AB-43000

SILAFONT[®]-34 is a hardenable aluminium casting alloy. It is noted for its mould filling and flow capacity, can be injected well and shows no tendency towards heat cracks. Can be process in sand and coquille casting into complicated pressure-tight, vibration and impact-proof parts.

SILAFONT[®]-34 is free of trace elements that limit modification. The higher iron content compared to alloy SILAFONT[®]-30 is compensated for by a balanced addition of manganese.

Cast parts made from SILAFONT[®]-34 are therefore noted for good weather resistance and exemplary mechanical properties. However, under severe demands, preference should be given to the SILAFONT-30 alloy. SILAFONT[®]-34 is excellently weldable and machinable after hardening.

Composition in % by mass:

Si	Fe	Cu	Mn	Mg	Zn	Ti
9.0-10.5	0.3	0.03	0.2-0.4	0.3 – 0.5	0.10	0.15

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.

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	90 - 150 (90)	180 - 240 (180)	2 - 6 (2)	55 - 80 (60)
Coquille T64	200 - 260 (180)	240 - 300 (200)	2 - 5 (1)	80 - 100 (80)
Coquille T6	220 - 280 (190)	260 - 320 (220)	1 - 5 (1)	90 - 115 (90)
Sand F	80 - 120 (80)	160 - 200 (160)	2 - 6 (2)	45 - 60 (50)
Sand T64	180 - 270 (170)	220 - 320 (200)	1 - 4 (1)	75 - 110 (75)

Alloy SILAFONT[®] - 34 is 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