



Silafont®-36 *The die caster's home of HPDC alloys*

Worldwide available primary aluminum HPDC alloy with very good mechanical properties in the as cast state and more optimizable properties by heat treatments.

Good mechanical properties will be achieved already at the as cast state F.

High yield strength $R_{p0.2}$ in conjunction with good values for the elongation.

Treatment condition	0.2% YTS	UTS	Elongation A
F	120 - 150 MPa	250 - 290 MPa	5 - 11%
T5	155 - 245 MPa	275 - 340 MPa	4 - 9%
T4	95 - 140 MPa	210 - 260 MPa	15 - 22%
T6	210 - 280 MPa	290 - 340 MPa	7 - 12%
T7	120 - 170 MPa	200 - 240 MPa	15 - 20%

- **Wide range of mechanical properties for various applications e.g.:**
 - Automotive engineering
 - Mechanical engineering
 - Shipbuilding
 - Aircraft industry
 - Defense technology
 - Food industry
 - Architecture
 - Air conditioning technology
- **Primary aluminium HPDC alloy with low Fe content.**
With Strontium permanent modification for higher ductility at the as cast state F.
- **Excellent dynamic fatigue strength.**
Fatigue resistance 5% = 89 MPa. Highly resistant to stress corrosion cracking.
- **Magnesium content levels of 0.1% to 0.5% are adjustable for different requirements:**
 - **High magnesium content** results in high strength with good elongation.
 - **Low magnesium content** results in very good values for elongation at good strengths.
- **Very suitable for applications in vehicle constructions.**
Heat treatable for highest elongation and high energy absorption capability.
- **Replaces steel sheet constructions in vehicle designs.**
Significant cost and weight reductions are realizable, together with improved function integration.
- **Excellent machinable and very good suitable for welding processes.**
- **Well suitable for self-riveted joints, clinched joints, crimped joints and adhesive bonds.**
- **Very good corrosion resistance:** Coatings are often unnecessary.
- **Excellent castable HPDC alloy:** Solidification range, shrinkage behavior and expected die casting die endurance are comparable to that of AlSi9 and AlSi10Mg alloys.
- **Best mould release:** No sticking to the die.
- **Excellent castable for castings with wall thickness from 1.5 mm.**



DISCLAIMER:

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