

ALUMINUM CAST ALLOYS WITH ENHANCED MECHANICAL PROPERTIES



Fluidity of industrial cast 356.0 (USA) and (α -Al + Mg_2Si) alloys



Overall view of ingots

Areas of Application

The alloys can be used to produce critical parts of cylinder-piston group by the casting method

Specification

Tensile strength at 330 °C, MPa	170 – 228
Yield stress at 330 °C, MPa	150 – 204
Plasticity at 330 °C, %	2.1 – 2.6

Advantages

These alloys surpass the existing aluminum piston cast alloys in the combination of high mechanical, injection, and tribotechnical properties. Within the temperature range from 20 to 400 °C their tensile strength exceeds by 7 – 55% that of the best piston group cast alloys

Stage of Development. Suggestions for Commercialization

IRL3, TRL3
Vending of patent based
on license agreement

IPR Protection

IPR3

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