



Thermodur[®]-73 *The highly heat-resistant HPDC alloy for especially "hot" applications*

Highly heat-resistant primary aluminum HPDC alloy with excellent mechanical properties.

Very good hardness and high strength in the as-cast state.

Stable mechanical properties even at temperatures above 200 °C.

Ageing temperature	Ageing time	0.2% YTS	UTS
20 °C	---	270 - 300 MPa	300 - 320 MPa
150 °C	500 h	280 - 310 MPa	330 - 355 MPa
225 °C	500 h	130 - 155 MPa	250 - 280 MPa

(Tested at ageing temperatures !)

Elongation A: < 1 %

Hardness: 130 – 150 HB

Stabilization annealing T5: water quenching / 210-270 °C / 10-12 h, cooling at air

- **Primary aluminum HPDC alloy with Sr refinement and low Fe content.**
The cast structure possesses no primary silicon and is modified with strontium.
- **The high alloy contents of Cu and Ni allow best heat resistance of the alloy.**
- **Very good ageing resistance** under the influence of heat.
- **Very high pressure toughness and hardness.**
- **Well suited for applications with very high ambient temperatures:**
Applicable for high thermal load work pieces with increased strength requirements in engine construction and general mechanical engineering.
- **Excellent castable HPDC alloy.**
Solidification range, shrinkage behavior and expected die casting die endurance are comparable to that of AlSi9 and AlSi10Mg alloys.
- **Very good pourable for thick- and thin-walled castings.**
- **Excellent machinable and very suitable for welding processes.**
- **Very good process ability in sand casting and gravity die casting.**
Linear shrinkage sand casting: 1.0 to 1.1%
Linear shrinkage chill casting: 0.7 to 1.0%



DISCLAIMER:

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