

Casting alloys

ALUMAN[®] - 16

GD AIMn1.6(Fe)

Area of application

ALUMAN[®]-16 is a non-hardenable aluminium casting alloy that is preferable used in die casting. It can also be used in sand casting and to a limited extent in coquille casting.

The melting and solidifying range of ALUMAN[®]-16 lies between 645 and 660°C. The alloy is therefore suitable for hard soldering. Corrosion resistance is excellent. ALUMAN[®]-16 is used in the food industry and in refrigeration construction.

Composition in the block in % by mass:

Si	Fe	Cu	Mn	Mg	Zn	Ti	Other
0.15	0.5-0.9	0.03	1.4-1.6	0.05	0.10	0.10	0.03 each

Mechanical properties

The values not in parentheses were determined on separately cast test rods and indicate the material and casting-related variance.

Casting process condition	0.2 Yield strength $R_{p0.2}$ N/mm ²	Tensile strength R_m N/mm ²	Ductile yield A 5 %	Brinell hardness HB 5/250
Die cast F	90 - 120	160 - 180	8 - 15	40 - 60

Alloy ALUMAN[®]-16 is delivered exclusively in the form of pigs produced through horizontal continuous casting (HCC). In this way, we offer the following advantages:

- Less scrap through maximum metal purity and uniformity
- Clean pigs without oxide inclusions
- No hard non-metallic inclusions
- Low gas content in the pigs 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