

## Casting material

# UNIFONT® - 94

### G-AlZn10Si8Mg

UNIFONT® – 94 is a self-hardening die casting alloy that is particularly used when good strength values are required without the need for heat treatment. Particular attention should be paid to the high 0.2% yield strength. The higher iron content compared to alloy UNIFONT® – 90 is compensated for by a balanced addition of manganese.

UNIFONT® – 94 can be processed excellently in a way that removes chips, and can also be mechanically polished to a high level.

A certain tendency towards tension crack corrosion must be considered on a case by case basis.

#### Composition in % by mass:

Si	Fe	Cu	Mn	Mg	Zn	Ti
8.5 – 9.3	0.4	0.01	0.3	0.3 – 0.5	9.0 – 10.0	0.1

#### Mechanical properties:

Process condition	0.2% Yield strength $R_{P0.2}$ [N/mm <sup>2</sup> ]	Tensile strength $R_M$ [N/mm <sup>2</sup> ]	Ductile yield A [%]	Brinell hardness HB
Die cast T1	230 – 280	300 – 350	2 – 4	110 – 120

Alloy UNIFONT®-94 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