



2022

Comptech alloys for Rheocasting

| Trade name | Chemical composition | Source | Standard | Application | State | Rp02 (Mpa) | Rm (Mpa) | A % | W/m*k (100 C) | Remark | Supplier |
|---------------|----------------------|-----------|----------|--|-------|------------|----------|----------|---------------|-----------------------------|-----------------|
| Rheocool | AlSi2.5FeMg | Secondary | N.A. | Thermal management, heat sinks and coolers | F | 90 | 200 | 9 | 165-175 | | Stena Aluminium |
| | | | | | O | 85-130 | 150-190 | 4,5-6,5 | 180-198 | Depending annealing process | Stena Aluminium |
| Rhegreen std. | AlSi5CuFe | Secondary | NA | All purpose, sustainibility, pressure tight, leak free | F | 135 | 249 | 2,7 | 150-155 | 226 & eq. replacement alloy | Stena Aluminium |
| | | | | | T5 | 112 | 229 | 3 | | | Stena Aluminium |
| Rheostrong | AlSi7Mg | Secondary | A356.2 | High strength, load carrying and fatigue parts | F | 95 | 200 | 5,0-11 | | Depending thickness | Stena Aluminium |
| | | | | | T5 | 125 | 200 | 7 | | | Stena Aluminium |
| | | | | | T6 | 195 | 270 | 8 | | | Stena Aluminium |
| Eccomelt | AlSi7Mg | Secondary | A356.2 | High Strength | F | 95-115 | 200-230 | 10-18 | | Available in EU and NA | Eccomelt |
| | | | | | T5 | 130-190 | 210-270 | 5-10 | | | Eccomelt |
| | | | | | T6 | 160-240 | 240-310 | 5-15 | | | Eccomelt |
| Aural-5 | AlSi7MnMg | Primary | A356 | BIW components | F | 100-107 | 225-228 | 8,4-13,8 | | | |
| A319 | AlSi6Cu4Mg | Primary | A319 | High strength | T6 | 360-400 | 420-460 | 4.0-9 | | | Rheinfelden |
| Revolution Al | AlSi7MnMg | Primary | A357 | High Strength | F | 150 | 240 | 4 | | | Rio Tinto |
| | | | | | T4 | 130 | 240 | 11 | | | Rio Tinto |
| | | | | | T6 | 200-280 | 280-300 | 3,0-9 | | | Rio Tinto |
| Castaduct | AlMg4Fe2 | Primary | NA | BIW components | F | 120 | 250 | 15 | | | Rheinfelden |
| RT 6xx+Ni | AlNiMgSi | Primary | NA | Strength & Electrical Conductivity | F | 80 | 170 | 15 | | Good thermal stability | Rio Tinto |
| | | | | | T4 | 90 | 200 | 18 | | | Rio Tinto |
| | | | | | T6 | 180-210 | 240-260 | 11-16 | | | Rio Tinto |



Stronger, thinner, leaner, greener.

Rheocasting is a melt preparation process used to achieve desired design properties for EV's and Telecom components by providing mechanical properties and other characteristics as high thermal conductivity. The process is used in high volume production since 2020.

Our contribution to a sustainable world is to participate in alloy development with the goal to reach optimal combinations of CO₂ and properties. The use of these alloys enables designers to reduce both weight and the CO₂ imprint from the alloy giving a double environmental effect.

The process is a low cost process due to the use of smaller DC machines, no process additives, very low porosity levels and prolonged tool life.

Our journey into tomorrows castings begun in 2007 and we expect that we will continue to develop process, alloys and applications for another decade or two.

In focus of our development is your needs and applications why we are looking forward to meet you as a partner or customer to discuss present and future challenges.



COMP
Rheocasting **tech**

NORT AMERICA
Martin Hartlieb

martin.hartlieb@comptech.se
+1 514 929 8505

EUROPE
Staffan Zetterström

staffan.zetterstrom@comptech.se
+46 761715650

CHINA AND ASIA
Per Jansson

per.jansson@comptech.se
+46 761735459