



Database name: COST507 Light Alloys Database
Database acronym: COST2 **Database version:** 2.2
Database owner: COST507, European Commission
Database segment: Light Metals Alloys

Brief description

COST2 contains data for 192 light alloy solution phases within a framework of 19 elements.

Applications

Light alloy design and engineering.

Included Elements

Al B C Ce Cr Cu Fe Li Mg Mn N Nd Ni Si Sn V Zn
Zr Zr

Included Phases

192 possible phases have been considered in this database.

Assessed Systems

This database is developed on the basis of the critical assessment work on light alloys established by the EU COST 507 Project, Round II (COST 1998). The project was devoted to the developments of new light alloys, with participants of 28 institutions from many EU countries (Austria, Belgium, Finland, France, Germany, Greece, Netherlands, Norway, Portugal, Spain, Sweden and UK) and Switzerland and Russia.

The database compiles the published assessment data, primarily on binary light alloys, resulted from the entire COST 507 Project. Some ternary systems are also included.

Validation

The quality of the assessed data may vary from one subsystem to another, and is therefore recommended that the use of this database should be always with care. Adjustment in some subsystems may be needed if the application is made for industrial alloys. This database presents a good resource for teaching and a fairly reasonable basis for academic research on light alloys.

Limits

Critical calculations must always be verified by equilibrium experimental data; it is the user's responsibility to verify the calculations but Thermo-Calc Software is interested to know about any significant deviations in order to improve any future release.

Scientific Models & References

See the Thermo-Calc Software reference list available at: <http://www.thermocalc.com/Library.htm>