

Version 13.0 (Data export to 3 rd party simulation S/W) (Additional API module available)***		Al alloys	Mg alloys	Cast Irons	General Steels	Stainless Steels	Ni alloys	Co alloys	Ti alloys	Zr alloys	Solder alloys	Copper alloys
Phases	Temperature/Concentration stepping	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Isopleth	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Metastable phases	✓	✓									
Physical properties	Standard physical properties*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Stacking fault energy				✓	✓	✓	✓				
	Gamma/Gamma' mismatch						✓					
	Magnetic permeability				✓							
Solidification	Phases and physical properties	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Back diffusion/Secondary dendrite arm spacing	✓	✓				✓	✓	✓	✓		
	Cooling curve	✓	✓	✓			✓	✓	✓	✓	✓	✓
	Homogenisation	✓	✓				✓	✓	✓	✓		
Mechanical properties**	O F H T5 T4/T6 T8 Heat treatment strength	✓										
	Room temp strength/hardness	✓			✓	✓	✓		✓			
	High temp strength/hardness	✓			✓	✓	✓	✓	✓			
	Flow-stress curve & rupture strength	✓	✓		✓	✓	✓	✓	✓			
	Creep and rupture life					✓	✓	✓	✓			
	Jominy hardenability				✓							
	Cast strength	✓	✓	✓	✓							
	Fatigue tool				✓	✓	✓	✓	✓			
	FLD/Processing map	✓	FLD		✓	✓	✓	✓	✓			
	Fracture toughness	✓			✓				✓			
Phase transformations	TTT/CCT diagram	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	TTA diagram				✓							
	Reaustenitisation phases and properties				✓							
	Transformation plasticity coefficients				✓							
	Isothermal transformations	✓	✓		✓	✓	✓	✓	✓	✓		
	Energy changes			✓	✓	✓	✓		✓			
	Cooling transformations				✓				✓	✓		
	Martensite formation				✓	✓			✓			
	Stress induced martensite				✓	✓						
	Quenching and welding data				✓							
	Simultaneous carbide precipitation/strength				✓							
	Temperature-time-precipitation of M(C,N), MN, AlN				✓	✓						
	Tempering hardness and properties				✓							
	Gamma'/Gamma" coarsening						✓					
	Hot rolling grain size/recrystallization/rolling force				✓							
Evolution of microstructure & strength						✓						
Data export	Forging simulation data	✓			✓	✓	✓	✓	✓			
	Welding and heat treatment simulation data				✓							
	Solidification simulation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Other	Carburisation				✓	✓						
	C diffusion in weld				✓							
	Dissimilar metal welds	✓					✓		✓			
	Pitting resistance					✓						

* Specific heat – enthalpy - density - molar volume - thermal expansion coefficient - thermal conductivity - electrical conductivity/resistivity - surface tension - liquid viscosity/diffusivity- Poisson's ratio- Young's/shear/bulk modulus. These properties can be calculated during/after heat treatment or during solidification for the whole temperature range including liquid phase. When relevant, properties are given for each phase.

** Proof stress, tensile stress and hardness are calculated at any temperature up to the melting point.

*** It allows you to automate and develop tasks within your own models and to integrate them into your own software via c/c++ programming.