

JMatPro® API v9.1 capabilities		Al alloys	Mg alloys	Cast irons	General steels	Stainless steels	Ni alloys	Co alloys	Ti alloys	Zr alloys	Solder alloys	Copper alloys
Solver	Thermodynamic calculations	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Coldfire	Physical properties (requires Solver module)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	RT matrix mechanical properties (requires Solver module)	✓			✓	✓	✓	✓	✓			
Solidification	Scheil-Gulliver model	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Back diffusion model	✓	✓		✓	✓	✓	✓	✓	✓		
	Quench models			✓	✓	✓			✓			
TTT/CCT	TTT/CCT diagrams	✓	✓		✓	✓	✓	✓	✓	✓		
Cooling	Phases and properties during solid-state cooling/quenching of matrix				✓				✓			
Mechanical	Strength & hardness	✓			✓	✓	✓	✓	✓			
	Creep					✓	✓	✓	✓			
	Flow stress curves	✓			✓	✓	✓	✓	✓			
	Age hardening curves	✓										
	Tempered hardness				✓							
	Flow stress curves per phase				✓							
Heat Treatment	Microstructural evolution and RT strength following heat treatment						✓					