



14670 Cumberland Rd
 Noblesville, Indiana 46060
 800.783.2420
 solutions@mppinnovation.com
 www.mppinnovation.com

The Leader in Aluminum

Mechanical Properties of Selected pm Aluminum Alloys

Alloy System	MPP Designation	Nominal Composition, %						Density	Tensile Strength		Yield Strength		Elong.	Hardness	Application
		Cu	Mg	Si	Zn	Trace	Al		MPa	ksi	MPa	ksi			
Al-4%Cu	2014	4	0.8	1		<2.0	Bal.	2.5	180	26	160	23	2	20	Moderate Strength
Al-4%Cu	2234	4	2	0.8		<2.0	Bal.	2.6	240	35	185	27	3	42	Moderate Strength
Al-2%Cu	2236	2.5	1.5			<2.0	Bal.	2.6	320	46	300	43	3	55	High Strength
Al-8%Si	4144	2	1	8		<2.0	Bal.	2.5	165	24	145	21	1	30	Wear Resistance
Al-14%Si	4244	2.5	0.5	1.4		<2.0	Bal.	2.5	240	35	207	30	1	35	Wear Resistance
Al-1.5%Mg	6420	0.8	1.5	0.8		<2.0	Bal.	2.6	193	28	138	20	3	20	Furnace-brazable
Al-5%Zn	7075	2	1.5		5	<2.0	Bal.	2.5	207	30	130	20	8	25	High Ductility

Alloy Designation Number - closely follows The Aluminum Society protocol - not necessarily registered with them.

Nominal Compositions - Approximate values of major additives/elements, not specifications

These properties represent data from laboratory test samples that were processed under manufacturing conditions; they cannot be taken to predict properties of a custom-designed part, since the specific design will dictate performance. Functional performance evaluation of prototype samples is suggested.