

# ALUMINIUM ALLOYS FOR ELECTRICAL APPLICATIONS

## ALLOYS

At Lamifil we develop and manufacture a broad range of alloys. The tabel below shows some typical values but we could also produce according various international standards like EN573-3 or others such as AA, GOST, JIS, ...  
Did you not find the alloy you are looking for? Contact us so we can see how we can support you.

CHEMICAL COMPOSITION EN 573-3													
	Si	Fe	Cu	Mn	Mg	Cr	Zn	V	Ti	B	Other		All
											each	total	
<b>1xxx series</b>													
<b>EN AW-1350</b>	0.1	0.4	0.05	0.01	-	0.01	0.05	Sum 0,02		0.05	0.03	0.1	≥ 99,5
<b>EN AW-1370</b>	0.1	0.25	0.02	0.01	0.02	0.01	0.04	Sum 0,02		0.02	0.02	0.1	≥ 99,7
<b>5xxx series</b>													
<b>EN AW-5005</b>	0.30	0.70	0.20	0.20	0,5 - 1,1	0.10	0.25	-	-	-	0.05	0.15	Remainder
<b>EN AW-5154 *</b>	0.5	0.5	0.1	0.5	3,1 - 3,9	0.25	0.2	-	0.2	-	0.05	0.15	Remainder
<b>6xxx series</b>													
<b>EN AW-6101</b>	0,3 - 0,7	0.5	0.1	0.03	0,35 - 0,8	0.03	0.1	-	-	0.06	0.03	0.1	Remainder
<b>EN AW-6201</b>	0,5 - 0,9	0.5	0.1	0.03	0,6 - 0,9	0.03	0.1	-	-	0.06	0.03	0.1	Remainder
<b>8xxx series</b>													
<b>EN AW-8030</b>	0.1	0,3 - 0,8	0,15 - 0,30	-	0.05	-	0.05	0.03	-	0,001 - 0,04	0.03	0.1	Remainder
<b>EN AW-8176 **</b>	0,03 - 0,15	0,4 - 1,0	-	-	-	-	0.1	-	-	-	0.05	0.15	Remainder

\* 0,10 - 0,50 Mn+Cr \*\* 0,03 Ga

## AL59

	TENSILE STRENGTH (MPA)		ELONGATION TYPICAL	RESISTIVITY	CONDUCTIVITY
	min.	max.	%	nOhm.m	%IACS
<b>AS 1531</b>	165	185	8	29.05	59.3
<b>&amp;SS 424 08 13</b>					
<b>&amp; SS 424 08 14</b>					

## ALZR

		TENSILE STRENGTH (MPA)		ELONGATION	RESISTIVITY	CONDUCTIVITY	MAX. OP. TEMP.
		min.	max.	%	nOhm.m	%IACS	°C
<b>ASTM B-941-05</b>	AT1, TAL	110	130	>8	28.50	60.50	150
<b>IEC 62004</b>	AT2, ZTAL	125	160	>8	28.50	60.50	210
	AT3, KTAL	185	-	>3	30.65	56.30	150
	AT4, XTAL	Not available as wire rod, only as final diameter					230

TYPICAL MECHANICAL AND ELECTRICAL PROPERTIES					
Temper	Tensile strength (Mpa)		Elongation	Resistivity	Conductivity
	min.	max.	%	nOhm.m	%IACS
<b>H15</b>	125	140	5 - 15	28.01	61.5
<b>H14</b>	115	130	5 - 15	28.01	61.5
<b>H13</b>	105	120	7 - 20	28.01	61.5
<b>H12</b>	95	110	10 - 30	28.01	61.5
<b>H11</b>	80	95	15 - 35	27.85	61.9
<b>O</b>	60	80	30 - 50	27.35	63
<b>H16</b>	165	205	20	33.10	52.0
<b>F</b>	210	280	16	52.00	33.1
<b>O</b>	210	275	20	51.00	33.8
<b>O3</b>	210	260	25	51.00	33.8
<b>T1</b>	Lamifil offers different subtypes. Values on request				
<b>T4</b>					
<b>T1</b>					
<b>T4</b>					
<b>O</b>	Values on request				
<b>H24</b>					
<b>O</b>					
<b>H24</b>					

