



# Alcoa Specialty Alloys: A210 Extr**u**Strong™

**THE NEW GENERATION OF HIGH-STRENGTH ALLOYS**  
*Improved strength for light-weighting structural applications*

## **A210 Extr**u**Strong™**

***Increased strength, lighter weight, & lowered thickness***

Utilizes good mechanical properties in highly-demanding structural and lightweight applications in the automotive and construction industries.

***Up to 40% higher strength performance vs. competitive alloys***

6XXX series alloy with improved strength that provides lighter weight and optimal mechanical properties for thin-wall structures solving corrosion and scrap issues.



# Strength elevated to the next level

## ExtruStrong™ Strength elevated to the next level



**NEW  
ALLOY!**

- ✓ **Strength**  
YIELD STRENGTH 44% HIGHER VS. COMPETITORS
- ✓ **Fatigue Performance**  
ALMOST 30% IMPROVEMENT VS. COMPETITORS
- ✓ **Corrosion and Aging**  
BEST OVERALL PERFORMANCE
- ✓ **Scrap Acceptance**  
EASIER SCRAP ACCEPTANCE VS. MARKET
- ✓ **Fewer Stress Cracks**  
CONSISTENTLY FAIR TO GOOD EXTRUDABILITY
- ✓ **Profile Thickness**  
THINNER EXTRUDED PROFILES
- ✓ **Regular Anodizing**  
IMPROVED ANODIZING RESULTS



7XXX EXTRUSIONS

## ExtruStrong™ Technical Data

**CHEMICAL COMPOSITION** \*(all in wt%. Single values indicate maximum content)

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	OE	OT
0.5 - 1.2	0.1 - 0.5	0.1 - 1.0	0.05 - 0.5	0.5 - 1.5	0.05 - 0.5	0.1	0.1	0.05	0.15

Chemistry can be customized to meet customer needs

## MECHANICAL PROPERTIES

Alloy	Temper	Extruded Profile Thickness t (mm)	Yield Strength (Mpa)	Tensile Strength Rm (Mpa)	Elongation (%)
<b>A210 ExtruStrong</b>	<b>T6</b>	<b>≤ 5</b>	<b>375-400</b>	<b>390-400</b>	<b>≥ 12</b>
6061	T6	5 < t ≤ 25	≥ 240	≥ 260	≥ 8
6082	T6	5 < t ≤ 15	≥ 260	≥ 310	≥ 8
6110A	T6	≤ 25	≥ 360	≥ 380	≥ 8
6056	T6	≤ 10	≥ 360	≥ 380	≥ 8
7003	T6	≤ 10	≥ 290	≥ 350	≥ 8
7005	T6	≤ 40	≥ 290	≥ 350	≥ 8
7108A*	T66	≤ 40	≥ 290	≥ 350	≥ 8
7020*	T6	≤ 40	≥ 290	≥ 350	≥ 8

The achievable mechanical properties are strongly dependent on the extrusion, quench and aging processes used.

\*Alloy EN755



To know more about the full range of Alcoa special alloys applications, scan the QR Code.

You can also use the link in your Internet browser:  
<https://www.alcoa.com/global/en/what-we-do/aluminum/cast-products/foundry-aluminum-alloys.asp>