





- Alurex is a cast plate brand of Seykoç, which is produced to be alternative of EN AW 5083 alloy, stress relieved, Ultrasonic -test performed and excellent machining capability properties.
- Ultrasonic crack detection test is performed on 100% parts in accordance with the customers request.
- The main fields of application of Alurex are model building, fixture, food and packaging machine, aircraft industry processing plate, mould making so many industries.

# ALLOY PROPERTIES

EN AW	5083
EN AW	Al Mg4.5 Mn0.7
EN AW	Al Mg4.5 Mn
DIN No.	DIN 3.3547

#### **Physical Properties:**

Density [g/cm³]	2.66	
Modulus of Elasticity	70000 N/m²	
Thermal Conductivity	110-125 W/m*K	
Thermal Expansion Coefficient	24,2 10-6 K	
Specific Thermal Capacity	900 J/kg	
Electrical Conductivity	15-18 m/Ωmm²	
Surface Roughness	10-15 μm	

#### Chemical Composition (EN 573-3):

Chemical Properties in %							Oth	er				
Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Ga	V	Each Max	Total
0.40	0.40	0.10	0.40 - 1.0	4.0 - 4.9	0.05 - 0.25	-	0.25	0.15	-	-	0.05	0.15

## Properties:

- Excellent Machinability
- Excellent Corrosion Resistance
- Good Weldability
- Low Stress and Very Good Dimensional Stability

#### The Main Application Field:

- Tool and Mould Making
- Blow Moulds and Injection Moulds
- Model Building
- Heat Proof Components

Form:

Plates



<sup>\*</sup>Depends on customer request.







## Thickness Range and Dimensions:

Thickness 5mm - 600mm

Width x Length 2100 x 4000mm

Please contact us for other dimensions.

#### Tolerances:

Thickness	± 0.30mm		
Width x Length	± 0.20mm		

#### Flatness:

Thickness 6 - 15mm	≤ 0,50mm
Thickness > 15mm	≤ 0,15mm

# Other Properties:

Machinability					
Homogenised and acc. to stress	1 – 2				
Dimensional Stability	1				
Erodability	1				
Surface Treatments					
Anodizing	2				
Special Anodizing Quality (AQ)	-				
Painting / Coating	1				
Polishing	2				
Weldability					
Gas	2				
WIG	2				
MIG	2				

## Homogeneity:

	Annealing / Recrystallization			
	Annealing Temperature	380 °C - 420 °C		
	Heating Time	0.5 – 3 hour		
	Cooling Conditions	30 °C/h - 50 °C/h		

Corrosion Resistance	
Normal Atmosphare	1
Salt Water	1
Forming	
Cold Forming	
Bending	5
Pressure Forming	5
Deep Drawing	5
Forging	2
Impact Extrusion	5
Hot Forming	
Impact Forging	-
Extrusion	-
Conformity for food industry according to DIN EN 602	Yes

# Rating:

1 - Excellent | 2 - Good | 3 - Average | 4 - Fair | 5 - Poor AQ - Anodized Quality must be pointed.





**Factory and Head Office** 

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