

# 3003 H24 Aluminum Circle

## Applications

Packaging	Chemical Industry	Equipment For Chemical Industry			
Heat Exchangers	Energy	Wind Energy	Electronics	Electronic Devices	
Containers	Tubes	Automotive	General Automotive Parts		
Automotive Exterior	Road Vehicle Systems	Road Vehicles	Construction		
Building Elements	Walls	Partitions	Facades	Roofs	Ceilings
Doors	Windows	Other Elements Of Buildings	Building Structures		
Other Structures	Buildings Protection	Sun Protection Systems	Consumer Goods		
Furniture	Domestic	Commercial & Industrial Heating Appliances			
Heating Elements	Cosmetics				

## Properties

### General

Property	Temperature	Value
Density	23.0 °C	<a href="#">2.73 g/cm<sup>3</sup></a>

### Dimension

Property	Value
Thickness	<a href="#">0.2 - 1 mm</a>

### Mechanical

Property	Temperature	Value
Bending angle 180°	23.0 °C	<a href="#">1 °/t</a>

Bending angle 90°	23.0 °C	<a href="#">0.5 °/t</a>
Elastic modulus	23.0 °C	<a href="#">69 GPa</a>
Elongation A50	23.0 °C	<a href="#">4 %</a>
Hardness, HBW	23.0 °C	<a href="#">37 - 45 [-]</a>
Shear modulus	23.0 °C	<a href="#">26 GPa</a>
Tensile strength	23.0 °C	<a href="#">120 - 185 MPa</a>
Yield strength	23.0 °C	<a href="#">80 MPa</a>

## Thermal

Property	Temperature	Value	Comment
Coefficient of thermal expansion	100.0 °C	<a href="#">2.3E-5 1/K</a>	20-100°C
Thermal conductivity	23.0 °C	<a href="#">176 W/(m·K)</a>	

## Electrical

Property	Temperature	Value
Electrical resistivity	23.0 °C	<a href="#">3.4E-8 Ω·m</a>

## Chemical properties

Property	Value
Copper	<a href="#">0.05 - 0.2 %</a>
Iron	<a href="#">0.7 %</a>
Manganese	<a href="#">1 - 1.5 %</a>

Silicon [0.6 %](#)

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Zinc [0.1 %](#)

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## Technological properties

### Property

**Anodizing** Good

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**Application areas** Facades: Single sheet, Sheets for composites/ sandwich Panels, Sheets for mechanized panels; Roofing: Single sheet, Sheets for composites/ sandwich Panels; Doors: Sheets for composites/ sandwich Panels, Sheets for mechanized panels; Sun Protection Systems: Single sheet (covering, sun breakers and gutters); Interiors and ceilings: Single sheet, Sheets for composites/ sandwich Panels, Sheets for mechanized panels, Decoration; Furniture, Plinths, Blinds: Single sheet, Intermediate transformation/interior use; Anodizing Quality; Electronic devices: Housing of devices; Heat exchangers: Fins, Heat exchangers, General applications; Tubes: Industrial tubes, Flexible tube, Pipes; Wind energy: Nacelle coverings, Rotor, Hub, Stairs; Cosmetics: Cosmetics pieces; Semi-rigid and corrugated: Smooth wall; Automotive trim: Interior trims; Components: Heat shields, Automotive fins, Heat exchangers, General transportation

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**Brazing** Excellent

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**Corrosion properties** Very Good

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**Welding** Very Good

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**Workability** Very Good

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