

ALJADE™-83

5083 boasts the highest strength even among non-heat-treatable alloys, and is a 5000-series aluminum alloy with exceptional corrosion resistance properties and weldability. Compared to JIS standards, ALJADE™83 offers greatly improved flatness and thickness tolerance, as well as reduced residual stress.

ALJADE™83 helps to reduce customers' costs.

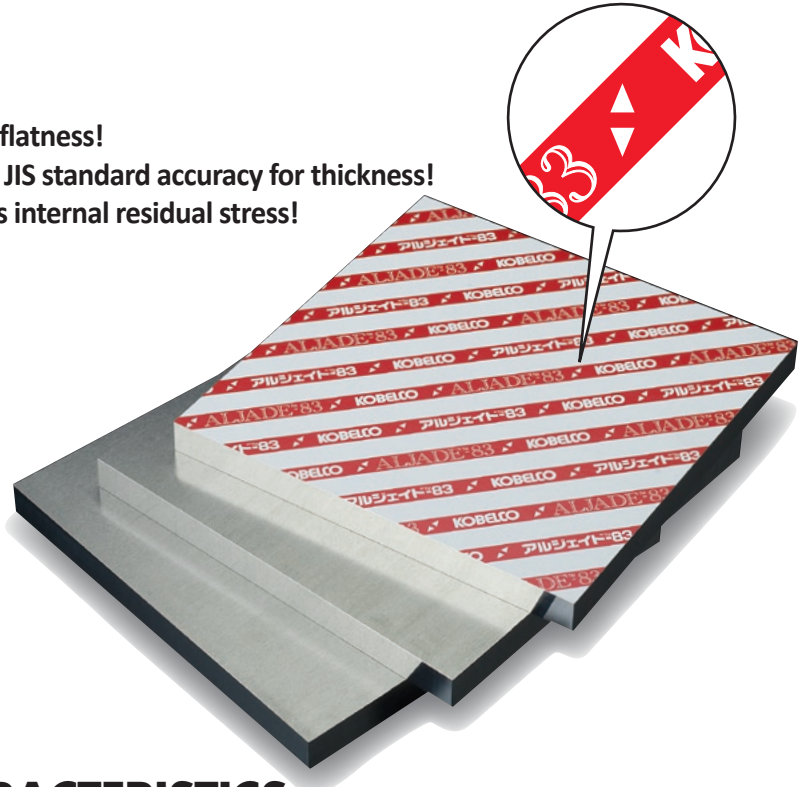
Marking to show direction of rolling

FEATURES

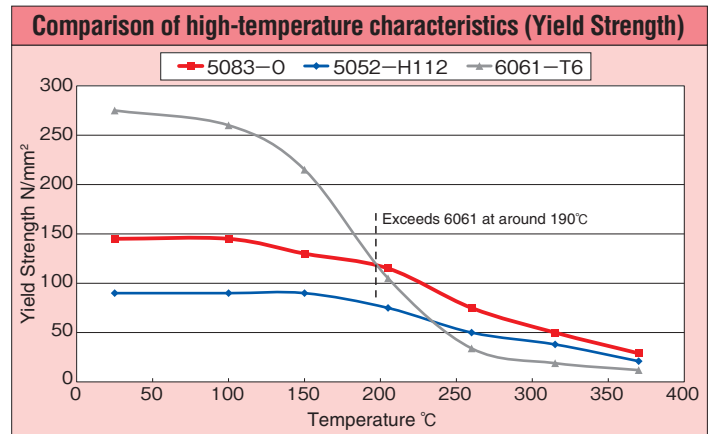
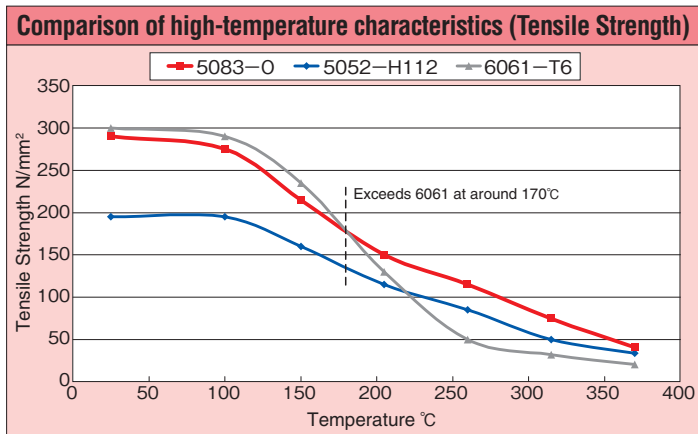
- ▶ Improved manufacturing processes offer increased flatness!
- ▶ A superior rolling technology offers approx. 1/4 the JIS standard accuracy for thickness!
- ▶ A distinctive heat treatment process greatly reduces internal residual stress!

APPLICATIONS

Structural materials, Semiconductor manufacturing equipment, LCD manufacturing equipment, Solar panel manufacturing equipment, Robots, Medical equipment, OA equipment, Optical equipment, Various molds, Tools, etc.



HIGH-TEMPERATURE CHARACTERISTICS



QUALITY/REFINING/COMPOSITION**A5083P-O**

(Unit: Wt%)

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al
≤0.40	≤0.40	≤0.10	0.40-1.0	4.0-4.9	0.05-0.25	≤0.25	≤0.15	Remainder

THICKNESS ACCURACY

(Unit: mm)

Thickness	4	4<-≤5	5<-≤6	6<-≤12	12<-≤20	20<-≤30	30<-≤50
ALJADE™83	±0.08	±0.10	±0.12	±0.16	±0.30	±0.40	±0.50

Reference

Thickness	4≤-≤5	5<-≤6	6<-≤8	8<-≤11	11<-≤16	16<-≤22	22<-≤29	29<-≤35	35<-≤40	40<-≤50
JIS Tolerance	±0.35	±0.45	±0.50	±0.60	±0.70	±0.80	±0.90	±1.0	±1.1	±1.3

SURFACE FLATNESS

ALJADE™83 Thickness 4-50mm 0.4mm or less/M

MECHANICAL PROPERTIES (TYPICAL VALUES)

Thickness (mm)	Tensile Strength (N/mm ²)	Yield Strength (N/mm ²)	Elongation (%)
4≤-≤40	321	160	22
40<-≤50	310	151	24

PRODUCT SIZE

(Unit: mm)

Thickness	Width x Length
4~50	1,250 × 2,500 1,525 × 3,050

KOBE STEEL, LTD.

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