



LAMINATION TOOLING

Serving the P.C. Industry Since 1977

TADCO 630 STAINLESS STEEL SPECIFICATIONS

Steel Type

Type 630 stainless steel FH (full hard) with a #6 polished finish both sides. Polishing direction is parallel to the length dimension of the plates.

Roughness

#6 Polished: $R_z \leq 1.0\mu\text{m}$ (for reference $R_{\text{max}} \leq 1.2\mu\text{m}$)

Chemical Composition (%)

C	Ni	Cr	Cu	Nb
≤ 0.07	3.00 - 5.00	15.50 - 17.50	3.00 - 5.00	0.15 - 0.45

Mechanical Properties

Yield Strength: 1370 N/mm² (min.)

Tensile Strength: 1370 N/mm² (min.)

Elongation: 2% (min.)

Hardness: Over 430 (HV)

Physical Properties

Mean Coefficient of Thermal Expansion

20 - 100° C	$11.6 \times 10^{-6} / ^\circ\text{C}$
20 - 400° C	$12.2 \times 10^{-6} / ^\circ\text{C}$

Thermal Conductivity

0 - 150° C	0.18 W/cm x ° C
0 - 400° C	0.23 W/cm x ° C

Tolerances

Thickness Tolerance: $\pm 0.1\text{mm}$

Thickness Deviation: within 0.05mm

Width & Length: +1.0mm/-0 (Small Plates)
+2.0mm/-0 (Large Plates)

Diagonal Difference: less than 2mm

Flatness: less than 2mm

Inspection Standards

Light Scratches: No scratch deeper than 3 μm . For scratches less than 3 μm deep, there will be no more than one scratch longer than 10cm in a 300mm x 300mm area.

Bends: No bends can be felt by hand.

Pin Holes: No pin hole bigger than 0.08mm². For pin holes less than 0.08mm², there will be no more than one pin hole in a 300mm x 300mm area.

Unevenness: No unevenness.

Marking

No marks on the plates.

Others

Edges will have burrs removed and will be chamfered.

Corners will have a 5mm radius.

If required, Inspection Certificates concerning material composition, size of plates, and inspection standards will be provided.

For the thickness measurement, smaller plates will be measured at three points every 10 sheets, and larger plates will be measured at nine points.

Plates will be shipped with a foam sheet innerleaf between each plate.