

Stencil and Etch
Datum PhD
Datasheet



Overview

Datum PhD is ideally suited to etching applications and for the production of solder mask stencils for use in the PCB industry. Its low residual stress ensures minimal deformation following etching or laser cutting processes and it has been shown to be particularly suitable to step-etch applications and multi-layer stencils. The use of Datum PhD ensures exceptionally flat stencils with excellent paste release properties.

Datum PhD is a proprietary precision rolled strip manufactured from 304 grade stainless steel. The material is produced by cold rolling previously hot rolled coils of stainless. Hot rolled coils are produced according to the specification JIS G4304.

Datum PhD undergoes a tension levelling and annealing process to produce an exceptionally flat product and to remove internal stress. The low inherent stress eliminates shape deformation during processing by chemical etching or laser.

Chemical composition (%)

C	Si	Mn	P	S	Ni	Cr	Fe
≤0.08	≤1.00	≤2.00	≤0.045	≤0.030	8.00 - 10.50	18.00 - 20.00	BAL

Mechanical properties

Hardness (HV)	Tensile Strength (N/mm ²)	Yield Strength (N/mm ²)	Elongation (%)	Surface Roughness (Ra μm)
370-410	≥1000	Reported	Reported	Reported

Gauges available

0.08 to 0.50mm, tolerance ±4%.

Sizes available

- Width up to 610mm ±1mm
- Any sheet lengths available ±1mm, or available in coils

Inspection

All incoming material is inspected and confirmed to conform to the above criteria. All orders are visually inspected prior to despatch.