

Stencil and Etch
Datum FG
 Datasheet



Overview

Datum FG is the ultimate product for ultra high end solder mask stencils for use in the PCB industry. Its exceptional flatness and proprietary stress relief properties make it well suited to intricate high density and multilayer stencils. Excellent registration can be achieved particularly in areas of high density apertures.

The real benefit of Datum FG lies in its solder paste release properties. The fine grain structure of only 1 to 2 μm leads to improved paste release resulting in significantly reduced manufacturing defects. The grain structure also ensures a much smoother surface finish in step etched areas. Print trials have shown Datum FG to be more consistent than electroformed nickel.

Chemical composition (%)

C	Si	Mn	P	S	N	Nb	Ni	Cr	Fe
≤ 0.03	≤ 1.00	≤ 2.00	≤ 0.040	≤ 0.030	0.10-0.16	0.03-0.11	6.50-8.00	17.00-18.00	BAL

Mechanical properties

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

Gauges available

0.08 to 0.25mm, tolerance $\pm 4\%$.

Sizes available

- Width up to 610mm $\pm 1\text{mm}$
- Any sheet lengths available $\pm 1\text{mm}$, or available in coils on a variety of core sizes

Inspection

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