

TECshield 40

The TECshield 40 range is essentially an 'on-the-bench' modelling system developed to enable RFI/EMI development engineers to prototype shielding cans, fences and lids quickly and easily. More importantly, the electronic performance or the 'shielding effectiveness' will be closer to a custom manufactured can when compared to traditional 'modelling' techniques. The TECshield range provides a professional and effective method to evaluate a solution.

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TECshield 40

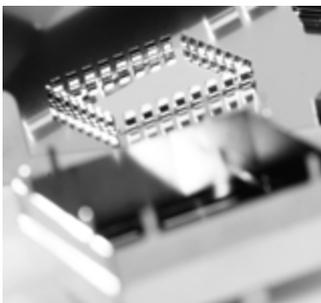
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Concept

The etched fold line principle used in the design and construction of photo chemically machined shielding cans provides an easy method of assembly. As 'Origami' is for paper, the use of TECshield, with its etched fold lines, can be likened to starting with a blank sheet of paper.

- **Cut-and-form sheet solution**
- **Fast screening evaluation**
- **Available from stock**
- **Fast, convenient and cost effective**



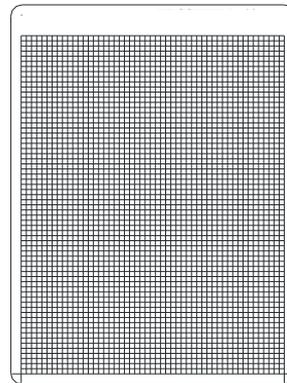
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TECshield has the appearance of metal graph paper. It is copper sheet with a semi-etched cut-n-fold grid system at a pitch of 0.2". It is electroplated with Bright Acid Tin for long life solderability.

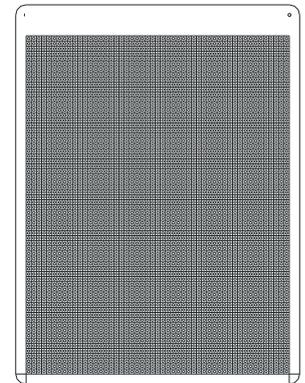
TECshield plus is the same concept but with hexagonal shaped holes positioned within individual grid squares. This is to prevent 'Hot-Boxing' which occurs when heat generating components are enclosed in an air tight shielding can.

TECwall as its name suggests is pre-fabricated strips supplied in sheet form. Each TECwall sheet consists of twelve strips giving thirty-three segments each with a centrally placed pin (see fig.1). Surplus pins can be simply broken off. Using TECwall, cans and fences can be constructed with removable covers fabricated from TECshield or TECshield Plus.

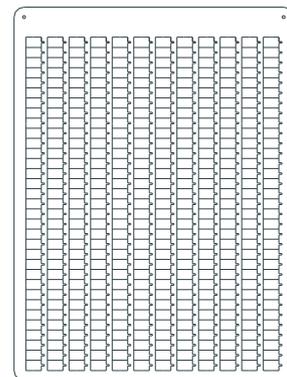
TECpack 3-in-1 is now available which contains each of the Tecshield 40 range.



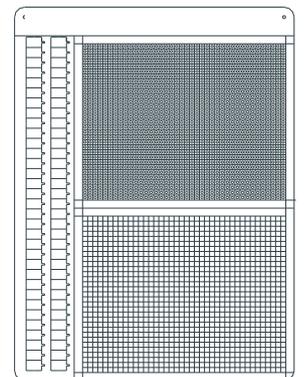
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TECshield 40 plus

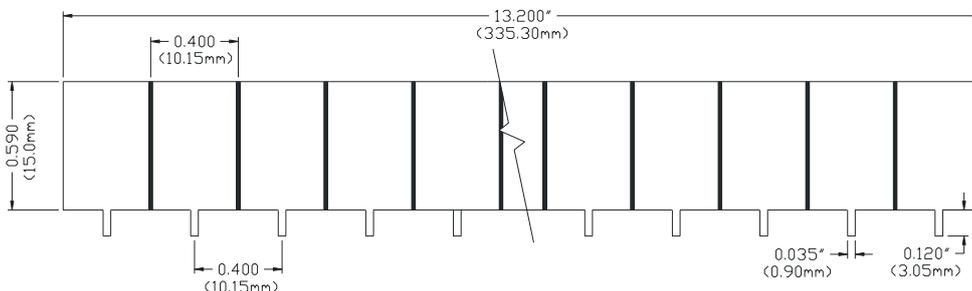


TECwall 40



TECpack 40 3-in-1

The TECshield 40 range is supplied in 370 x 280mm sheets, the top margin is 30mm and the side borders 10mm. TECshield and TECshield plus have 51 x 66 squares @0.2" (5.08mm) pitch.



Method - The idea is simple:

- First, take a felt tipped pen and draw onto the TECshield sheet the flat development of the shielding can to be made, being careful to adopt the pre-etched grid system.
- Next, take a strong pair of scissors and cut around the shape. The semi-etched grid lines make cutting regular and easy.
- Then, simply fold all four sides of the can to 90 degrees. If required, the joins can easily be soldered to form an air tight enclosure.

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Quality

The electronic performance or the 'shielding effectiveness' will be closer to a custom manufactured can when compared to traditional 'modelling' techniques. Most traditional modelling centres on using materials not ideally suited to the high frequencies being contained, e.g. Biscuit tins, old tobacco tins and aluminium cooking foil are all suited to low frequency shielding. Other old favourites include copper clad FR4 PCB substrate and self adhesive copper tape, which are both difficult to work with and dubious in shielding continuity.

Professional Material Designed For Purpose

RF propagation has earned a reputation of a 'black art' and the image has not been helped by the Heath Robinson collection of prototyping material hitherto used. Companies who wish to 'clean up their act' should be attracted to using professional materials for what has quickly become a significant element of product development. TECshield should be considered as a professional way to produce prototype RF CANS. Regular users would do well to have a small stock on-hand in their workshops at all times.