E-FAB Manufactures PCB Stiffeners & Busbars

E-FAB manufactures single layer, 2-layer multilayer, L-formed stiffeners and busbars for a wide variety of applications. Refer to the following spec sheets for P/Ns when ordering our standard products. Products are available in epoxy coated or non-coated format. Custom configurations available too (e.g. bent, angled, curved, different pin configurations, etc.).

E-mail or call E-FAB at (800)-600-3322 for price quote.

E-FAB Stiffeners Specifications and Part Numbers
Single & Double Layer, L-Formed, Busbars & Stiffeners

E-FAB, Inc. www.E-FAB.com
E-FAB, Inc., 1075 Richard Ave., Santa Clara, CA USA 95050
**EFI-X-XXX**

**STANDARD TABLE**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>DIMENSIONS (INCHES)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>1</td>
<td>0.34</td>
</tr>
<tr>
<td>2</td>
<td>0.32</td>
</tr>
</tbody>
</table>

**Notes:**

2. Finish: Tin plated per ASTM B 545 (Mil-T-10727) (Ends of conductors are not plated).
3. RoHS Compliant exemption Annex III 6(c).

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**EFFECTIVE DEC. 10, 2015**

**E-FAB, Inc.**

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SANTA CLARA, CA 95050
(408)727.5218
FAX (408)988.3342 E-MAIL : eng@e-fab.com
**NOT COATED**

**EFI-XXXX0**

**LENGTH** = NUMBER SPACES x PITCH (P) + 0.090" ±0.040"

**BODY HEIGHT**

1 -- 0.250"
2 -- 0.375"
3 -- 0.500"
4 -- 1.000"

**PITCH (P)**

DISTANCE BETWEEN PINS ON A LAYER
1 -- 0.500"
2 -- 1.000"
3 -- 1.500"

**TYP 0.040**
ALL CORNER RADIUS
PIN DETAIL

**Notes:**

1. Material: Copper 0.040" thk per ASTM B152/B152M Half Hard Alloy 110.
2. Finish: Tin plated per ASTM B 545 (Mil-T-10727) (Ends of conductors are not plated).
3. RoHS Compliant exemption Annex III 6(c).

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EFFECTIVE DEC. 10, 2015

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2. Finish: Epoxy coated over Tin plated per ASTM B 545 (MIL-T-10727) (Ends of conductors are not plated).
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A DOUBLE LAYER PWR / GND BUS BAR / STIFFENER IS MADE FROM TWO SINGLE LAYER BUS BAR / STIFFENER CHOSEN BY COMPLETING THE STANDARD ABOVE.

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E-FAB 2-Layer Multilayer Busbars

E-FAB Busbars have the ability to have two or more layers in one space saving device. The E-FAB 2-layer Busbars can be used on circuit boards, power supplies or other power distribution applications for both power(s) and/or ground at the same time.

The E-FAB 2-layer Busbar is designed essentially as a multilayer, with two conducting copper layers separated by an insulator layer. The copper layers are designed and manufactured with a staggered pin configuration (custom configurations are also available) so that every other pin is power and ground. The beauty of using the E-FAB 2-layer Busbars on your PCBs is having all the advanced features of an E-FAB PCB stiffener plus extra power(s) and ground busses rolled into one space saving design. E-FAB Busbars and Stiffeners can be manufactured in an uncoated design type or coated with an epoxy coating.

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(800)-600-3322  www.E-FAB.com
Product Datasheet

Interpon 100 is a range of epoxy based powder coatings designed to give optimum mechanical performance and exceptional protective qualities on fabrications and components where long term exposure to ultra violet light or exterior weathering is not anticipated. Interpon 100 powder products are available in gloss, semi-gloss, matt or textured finishes in a range of colours.

**Product Description**

- **Chemical type**: Epoxy
- **Particle size**: Suitable for electrostatic spray
- **Specific gravity**: 1.2-1.7 g/cm³ depending on colour
- **Storage**: Dry cool conditions (below) 25°C
- **Shelf Life**: 12 months
- **Sales code**: A-Series
- **Stoving Schedule**: 20 min at 160°C - 10 min at 180°C - 5 min at 200°C (Object temperature)
  - Full matt powders must be cured for 10 min at 200°C

**Powder properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical type</td>
<td>Epoxy</td>
</tr>
<tr>
<td>Particle size</td>
<td>Suitable for electrostatic spray</td>
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<td>Specific gravity</td>
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</table>
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**Film properties**

Mechanical tests carried out on steel panels. Chemical and durability tests carried out on lightweight zinc phosphated steel panels.

- All tests performed on panels coated with 50 microns film of gloss finish powder stoved for 10 minutes at 180°C (metal temperature).
- Matt and textured finishes may show lower values for mechanical performance.

**Mechanical tests**

<table>
<thead>
<tr>
<th>Test</th>
<th>Standard</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexibility</td>
<td>(Bend Test) AS1580 402.1</td>
<td>Pass 3mm</td>
</tr>
<tr>
<td>Adhesion</td>
<td>(2mm Crosshatch) AS1580 408.4</td>
<td>Classification 1 maximum</td>
</tr>
<tr>
<td>Cupping test</td>
<td>ISO 1520</td>
<td>Pass &gt; 7mm</td>
</tr>
<tr>
<td>Pencil Hardness</td>
<td>AS1580 405.1</td>
<td>F - minimum</td>
</tr>
<tr>
<td>Reverse Impact</td>
<td>AS3715 Section 2.5.8</td>
<td>Pass 2.5Nm</td>
</tr>
</tbody>
</table>

**Chemical Durability tests**

- **Salt Spray**: AS3715 Section 2.5.10 Pass 250 hours
  - no corrosion creep more than 2mm from scribe
- **Humidity Resistance**: AS3715 Section 2.5.7 Pass at 500 hrs
  - no blistering or loss of adhesion
- **Distilled water immersion**: BS3900-F7 at 40°C Pass - no blistering or loss of gloss after 250 hours
- **Exterior durability**: Some chalking and loss of gloss after several months continuous exposure.
- **Colour stability**: Fair – gradual yellowing of white and pastel shades on continuous exposure up to 120°C.
- **Solvent/Chemical Resistance**: Generally excellent resistance to acids, alkalis and oils at normal temperatures.
**Pre-treatment**

For optimum coating performance the following pre-treatment is recommended prior to the application of **Interpon 100**. The pre-treatment should be used in accordance with the supplier’s recommendations.

<table>
<thead>
<tr>
<th>Material</th>
<th>Recommended Pre-treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium</td>
<td>Multistage chrome chromate or chrome phosphate</td>
</tr>
<tr>
<td>Galvanised Steel</td>
<td>Multistage zinc phosphate or chromate</td>
</tr>
<tr>
<td>Steel</td>
<td>Multistage zinc or iron phosphate</td>
</tr>
</tbody>
</table>

**Application**

**Interpon 100** powder coatings can be applied by manual or automatic electrostatic spray equipment. Unused or over-sprayed powder coating can be reclaimed and recycled through the coating system.

**Additional Information**

AkzoNobel Pty Limited has a policy not to use lead or other heavy metal based pigments in our range of powder coatings. As a result of this policy, the use of bright and deep colours such as Yellows, Oranges and Reds are not recommended for severe outdoor exposure where long-term colour fastness is required.

**Safety Precautions**

This product is intended for use only by professional applicators in industrial environments and should not be used without reference to the relevant health and safety data sheet, which AkzoNobel has provided to its customer. If for any reason a copy of the relevant health and safety data sheet is not immediately available the user should contact AkzoNobel to obtain a copy before using the product. Minimum safety precautions in dealing with all powder coatings are as follows. All dusts are respiratory irritants. Therefore, inhalation of the dust or of the vapors resulting from the cure should be avoided. Take steps to prevent skin contact, but should contact occur, wash skin with soap and water. In case of eye contact flush immediately with clean water and seek medical advice. Dust clouds of any finely divided organic material can be ignited with an electric spark or open flame. Dust and powder should not be allowed to build up on surfaces or ledges. Dust collection equipment should be used which has provision for adequate explosion release. All equipment should be electrically earthed to prevent build up of static. Users are recommended to follow the guidelines laid down in AS3754:1990, “Safe Application of Powder Coatings by Electrostatic Spraying”.

**Disclaimer**

Unless otherwise agreed by us in writing, any contract to purchase products referred to in this brochure and any advice which we give in connection with the supply of products are subject to our standard conditions of sale. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous product development.

* Typical minimum specifications. Performance may vary slightly between individual products.