

Introduction

Welcome to our first news and information bulletin highlighting the diversity in our extensive range of electrical insulation materials and machined products. Our mission is to match these to your needs whilst providing an uncompromising service, so we are very proud when you tell us that it is our innovation, speed, precision and most of all consistency which sets us apart from our competition.

We are a strong family owned company with many years of experience in the electrical industry gained during a history stretching back over 80 years. We believe that this, together with quality products and uncompromising service, means we will be here working hard for you today and in the future.

Comprehensive technical specifications and pricing are available on our website but for more information or to discuss your machining requirements please do call us.

Printing

With expertise in electrical insulation and precision machining printing may not seem like an obvious market for Presspahn. More curiously perhaps, is that the company name 'Presspahn' comes from an essential material in the printing 'make ready' process. Also known as press papers and Elephantide, this pressed wood sheet has qualities which have not been improved upon for either holding typeset and printing plates in the lithographic process or bookbinding.

Perhaps all becomes clear when we know that Presspahn also has good electrical insulation properties for which its various grades are widely used in applications such as tag board, oil immersed power transformers and layer insulation.



The product can be punched, creased and folded. Certain grades can also be laminated with polyester films whilst others provide the optimum combination of electrical and mechanical strength, stability, low permittivity and maximum oil absorption. In fact there are grades of Presspahn press papers suited to an infinite variety of electrical, domestic and industrial applications.

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TECH SPEC – GPO-3 POLYESTER GLASS

Glastic® UTR Arc/Track & Flame Resistant Laminate is a mineral filled, continuous strand fiberglass-mat-reinforced thermoset unsaturated polyester material. It has been expressly developed to meet the arc, track and flame resistance requirements of the National Electric Manufacturers Association (NEMA) GPO-3 Industrial Laminate Specification (LI-1) and the physical and electrical strength requirements of (NEMA) GPO-3 (LI-1).

The mineral filler system was also specially designed to suppress smoke meeting or exceeding the stringent smoke and smoke toxicity requirements of MIL Spec MIL-M-14G (polyester) as well as MIL-P-15037E (melamine). It contains no halogen (chlorine or bromine) and will not liberate hydrogen chloride, hydrogen bromide or hydrogen cyanide when pyrolyzed.

In addition to being highly recommended for use in switchgear connectors and for control panels in enclosed areas Polyester Glass materials are especially recommended for use in the transit industry, where smoke generation and smoke toxicity are a primary concern.

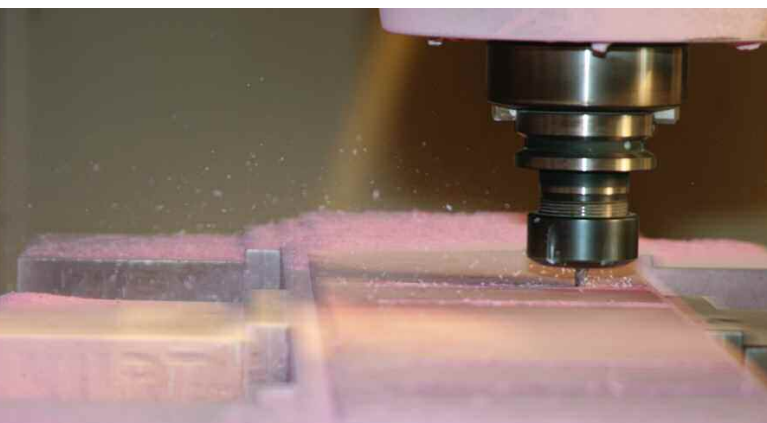
Power Generation

Switchgear and Instrumentation Ltd, part of the Powell Group, have a large manufacturing plant in Bradford producing substations, transformers and busbars amongst a range of products for medium and low voltage electrical power distribution. These are bespoke or low volume custom built items requiring precision engineered components. For the last 15 years they have been customers of Presspahn for insulation, supports and barriers.

Recently S & I Ltd was in need of numerous parts delivered within exceptional time-scales. Their purchase team emailed the drawings to our office with details of materials, quantities and the target delivery date. As is frequently the case in the power generation industry where volumes don't often exceed 50, this was for a one-off item. GPO-3 machined to tolerances within +/- 0.15mm was the specified material.

Matthew Pinder explains the Presspahn process, *“When we receive an enquiry it is our aim to respond promptly to the customer to ensure we have all the information to accurately assess the requirements of the job. At this point we are often able to provide advice, sometimes suggesting more appropriate material or more efficient methods of manufacture. We would then produce a quotation for the customer to review and discuss delivery requirements. In all cases we aim to exceed our customers expectations.”*

Purchasing Officer Kevin at S & I Ltd comments *“Presspahn is competitively priced and over the years has proved to be very consistent, delivering good quality solutions and service, helping us on several occasions when a very short turnaround has been required.”*



Consumer Insulation

Several months ago Amberjac, developing car batteries to power custom hybrid and electric cars, needed to source materials to incorporate a bulkhead failsafe. This not only had to provide electrical insulation but needed to be fireproof to meet automotive recommendations and have a degree of flexibility so as not to crack with stress from road vibration.

Having found Presspahn on the internet the guys at Amberjack, gave us a call. Matthew was soon on the road to Grantham with a variety of samples and fully equipped to provide a combustion demonstration. After detailed discussions several prototypes were created based upon cad cam files emailed to Presspahn. Again GPO-3 glass fiber sheet provided the solution however in the batteries themselves Mica was the more appropriate option.

Richard at Amberjack chose Presspahn after being impressed with the prompt personal attention following his enquiry and the promise of continued high quality service. He was keen to ensure that delivery lived up to this standard. *"I am pleased to say that the close tolerance of precision cutting and rapid turnaround exceeded our expectations and as a result we will be entering full production on schedule."*



TECH SPEC – PLANT CAPABILITY

Presspahn undertake full steel and inlaid pattern tool manufacture in house using wire erosion and traditional engineering techniques. Our engineers have over 25 years experience between them and are recognised as a major asset. Through their expert knowledge they assist customers with the practicalities of efficient and durable design before making the tools for their high precision machines.

The flexible press machinery available gives a capability of producing up to 8,000 units per hour on air feed mechanical presses or for those lower volumes a variety of hydraulic presses are able to produce parts using up to 60 tonnes of pressure.

Our CNC controlled machine department uses the latest CAD Design systems to help take our customers' requirements and turn their ideas in to the required instructions to be machined on one of the many computer controlled machining centres.

So, whether it be busbars, bobbins, wave solder pallets, batteries or the smallest switch component the combined experience of the Presspahn team ensures knowledgeable assistance and rapid turnaround.

PRODUCT LISTINGS, PRICES AND TECHNICAL SPECIFICATIONS

The Presspahn website provides technical specifications and application suggestions for our extensive stock of sheet and roll materials. These can be purchased through the online store where you can find detailed pricing.

Visit us at www.presspahn.com

Alternatively you may wish to discuss suitable materials for an application or machining requirements. So just give Presspahn a call; Matthew and the team are always ready and willing to help with your requirements.

NEW PRODUCT SPEC – ELMTHERM

When things get a little hot

A relatively new product to Presspahn is the Elmtherm 1000. It is made from a micro porous material that allows the production of boards with the lowest thermal conductivity of any industrial insulating product. Capable of withstanding temperatures of up to 1000°C, Elmtherm is ideally suited for use in the metal melting industry for such applications as the thermal insulation of transfer ladles, tundishes and industrial furnaces.

The material is simple to machine and can easily be cut with a sharp utility knife. It can be sawn, drilled and punched using standard woodworking tools. It is non

toxic, contains no organic binders and requires only the observance of normal dust protection measures when being worked. Care should be taken however to protect the material from moisture, which adversely affect performance.



Epoxy Glass hits the mark

Matt Laslett of the British Boomerang Society created a new British Record for accuracy at the international meeting in Viareggio, Italy late last year. His brilliant score of 91 put him in 6th position on the day.

And why am I telling you this? Because competition boomerangs are being made from materials supplied and machined at Presspahn. Now that's versatility.