



Cellpack in Asia

Thanks to a world-class performance, Cellpack continues to produce an enduring impression on customers and work together with innovative partners on a decades-long success: The development, production and marketing of top-quality system solutions for the low- and medium-voltage field. This brochure gives you a glance behind the scenes of a market leader.

Systems For Professionals

CELLPACK
Electrical Products

Behr Bircher Cellpack BBC Group

The **Behr Bircher Cellpack BBC Group** is a private Group of companies controlled by Prof. Dr. Giorgio Behr, Buchberg (Switzerland) with diverse activities in the industrial sector as well as investments in the financial and real estate sectors.

The success of the group as a whole is based on continual innovation, uncompromising quality, real teamwork and open communication. All 5 companies within the Behr Bircher Cellpack BBC Group are specialists in their chosen markets and most are among the market leaders.

Each division is managed according to clear guidelines whilst retaining a maximum level of autonomy. This shortens both the decision-making chain and our reaction time to changes. The BBC Group includes:

Bircher Reglomat, Beringen and Speicher (Switzerland), the European market leader for touch or movement sensitive switching operations (safety applications and comfort) with marketing companies in the most important markets

Bircher ProcessControl, Beringen (Switzerland), major provider for engineering and control systems, with its own production company in Hranice (Czech Republic)

Cellpack Electrical Products, Waldshut-Tiengen (Germany) and Villmergen (Switzerland), one of the leading providers of underground connections in electrical distribution, with its own marketing companies in the most important markets

Cellpack Packaging, one of the leading major providers for flexible packaging with its own production locations in Lauterecken (Germany), Villmergen (Switzerland) as well as Valasske Mezirici (Czech Republic) for gravure printing and flexo printing as well as for manufacture of bags and its own sales department in Germany, France and the Czech Republic as well as in important export markets

Cellpack Plastics Technology, with factories in Villmergen (Switzerland) and Valasske Mezirici (Czech Republic), trade and processing of special plastics with its own sales department in Switzerland, in Germany as well as France

The BBC Group recorded a turnover of around CHF 330 million and employs around 1'116 full-time staff in 2007.

The history of Cellpack – A brief journey into the past

“Cellpack AG” was founded in Switzerland in 1935 emerged from “Gebrüder Dreifuss AG”, a strawwork producing business, which used the plastic cellophane (invented in Switzerland) as an alternative to natural straw which was becoming scarcer. The brothers quickly realized the potential and found the company Cellpack, an abbreviation for Cellophane Packaging. The many high quality industrial products developed in the following years finally came to include the future-oriented line of electronic products, currently produced by Cellpack Electrical Products. Since then, this company has been active in the development, production and marketing of modern cable connection systems.

In 1967, Cellpack GmbH in Waldshut-Tiengen (Germany) was founded to produce cable connection systems and fibre-reinforced plastics. The hope that this would also be able to serve the EU internal market more efficiently became a reality. In 1987, new premises were constructed, the administrative department of which was again increased just four years later. Shortly afterwards, the production halls also had to be expanded.

Cellpack Electrical Products employs around 200 people worldwide and today with an additional manufacturing facility in Liegau-Augustusbad (Germany). Further subsidiaries in Europe and Asia are responsible for sales and customer service. Since 2001, Cellpack Electrical Products has belonged to the Behr Bircher Cellpack BBC Group. Thanks to the progressive stance of the principal shareholder and the low level of centralization in BBC, Cellpack Electrical Products can operate in the marketplace with the highest flexibility and continuously enhance its market positions.



At Gebrüder Dreifuss AG



Fabrication of cast resin sets in Wohlen in the 1960s



Cast resin filling in Tiengen in the 1970s



The first factory building of Cellpack GmbH



The factory in Waldshut-Tiengen 2007

Systems For Professionals – Cellpack Products

Cellpack Electrical Products, a wholly owned division by Behr Bircher Cellpack (BBC) Group develops and manufactures cable accessories for applications in low and medium voltage energy cables. Connection of energy cables, whether termination or branched joints or distribution networks and in buildings – Cellpack cable accessories are widely used.

In a cable system, cable accessories are an essential part in determining the quality. Cellpack cable accessories have shown and proven to be of the same operating safety as the cable and meet all the requirements to permit rapid, easy and secure assembly.

Depending on its intended purpose, the requirements for cable accessories are diverse. Each cable joint or termination represents a point of discontinuity within a cable system; the correct dimensioning of the internal and external insulation must ascribe a high degree of importance. In the development of all Cellpack cable accessories, the observance of international testing provision is always taken into account. This includes the operating safety of a conductor connection; an adequate level of insulation; short-circuit proofing and resistance to thermal, mechanical and environmental influences.

Cellpack Electrical Products offer a comprehensive product range which is also suitable for special applications and assembly situations. The system compounds are matched to each other in such a way as to guarantee that safe results are achieved. Last but not least, Cellpack cable accessories are durable over many decades.



Cast resin technology

Cast resin technology is one of the long-standing but constantly improved variants of a cable joint set. To completely renew the plastic sheathing of a connection, a transparent cast shell is created around the point which has had its cross-section expanded. The two halves are closed so that only the middle funnel opening remains. This is filled with the viscous casting resin together with a hardening agent which sets within a few minutes and completely seals the area. Whereas the raw hardening agent evaporates into the air, it is completely harmless once it has set. After it has served its purpose, it can be disposed of safely in household waste.



The low-voltage and medium-voltage network

The regional electricity distribution network with a voltage of 10 to 36 kV belongs to the medium voltage network. At transformer stations, the electricity is transformed or converted to the 400 or 230 volts used in the local network, for subsequent divided distribution to the low-voltage customers. Public utilities which also often operate power stations with combined heat and power, feed their current into this network. The lines to the transformer stations partially run as underground cables. The outgoing low-voltage network is generally laid underground and supplies households, industry, businesses and administration offices. In these cable systems, there are connections, branch-off points and terminations in which Cellpack cable accessories are used.

Medium-voltage technologies

In the medium-voltage range, i.e. for the voltage levels 6 to 36 kV, especially innovative solutions are required which correspond to the highest quality standards. Because of the high costs incurred by the energy supply company in the event of supply interruptions, absolute reliability and continuity must always be guaranteed. The cable accessories are based on the Cellpack silicone rubber technology with a special field control principle which is always being refined further. The Contrax technology combines both silicone and slip-on technology. The integration concept involves prefabricating systems in the factory so as to deliver them in an already controlled and checked state. By means of a connector technology, insulation, field control and external protection are combined in one component.

Customer groups and fields of application

Cellpack Electrical Products is one of the leading producer and service provider in the field of cable accessories. For all customer segments and tasks, innovative solutions are developed rapidly and without complications.

Our products are ubiquitous in everyday life and form an essential part of our infrastructure even if they often remain invisible: household connections, street lighting, telecommunications connections and the general electronics industry. Other than Utilities companies, our customers are also active in mining, railways, shipbuilding, petrochemicals and even include crude oil companies which operate drilling rigs on the high seas.

Cellpack systems provide installers at the construction site with all the necessary materials and technologies required for their work. Therefore, we offer numerous complete connection sets and preassembled components to simultaneously increase working safety and prevent application errors.

Heat-shrink tubing for medium voltage



Plug-in connectors



Slip-on joint body



Slip-on termination



Research and development on the path towards innovative, customer-specific product solutions

Cellpack views itself as a trendsetter in the development of worldwide cable connection technologies. To fulfill this claim, existing procedures and systems are improved and new materials and technologies are investigated. The aim is the construction of new, ground-breaking products.

Since it is equipped with excellent testing facilities such as a high-voltage test field and chemistry and analysis laboratories, the company can perform a diverse range of tests and investigations. Before a product can be marketed successfully, many individual development and testing steps are required. For example, in fatigue tests, the strength of new components is tested. Resistance to mechanical influences, i.e. impact strength, lightning strike resistance, and resistance to other extreme environmental influences like intensive UV radiation, salts or acids are all studied. On the basis of the observed signs of wear and the determined measurement values, the expected service life of the cable accessories can be calculated.

However, if complaints or functional failures of cable accessories occur, the testing facilities are called on to perform a comprehensive error analysis. It is necessary to determine whether the cause is attributable to material and processing defects or whether assembly errors occurred. The research and development department also searches for product solutions for special applications at the request of customers and is available to advise and train these customers.

As a partner, Cellpack collaborates not only with the industry on new projects and studies, but also in particular with universities, higher education facilities and accredited testing institutes in Dresden, Karlsruhe, Zittau and Aachen (all in Germany). The company's own research institute is located in Zittau. The common research projects are concerned, for example, with the investigation of plastics, e.g. silicone and casting resin, their fundamental material properties and their applicability in cable accessories. Sophisticated tests, which are first performed internally and then at the testing institutes, are a requirement for the approval of these complex products.

Worldwide, the standards differ in dimensions, technologies and regulations for energy lines. As representatives of the electronics industry, the employees of Cellpack contribute in EU committees and VDE conventions with their know-how and suggestions for the harmonization of standards for European cable networks. The advantages of standardization include the fact that secure and cost-effective solutions can be implemented with intelligent constructions.



Cable sets in fatigue testing

Decentralized quality assurance

In our production, by means of optimal manufacturing and processing steps, precise machine settings and tests, it is ensured that the values defined in the development phase are observed. Every employee possesses a high degree of individual responsibility for product quality in his own field of work.

Thanks to their comprehensive experience in plastic processing, employees are capable of checking the significant quality characteristics of different orders or unit quantities during production. Each product's traceability is ensured at all stages right back to the raw material. For flexible manufacturing of smaller series, some products are fabricated manually and subjected to additional visual checks.

In Europe, Cellpack is certified according to DIN ISO 9001-2000 and is also a member of VDE (Association for Electrical Engineering).

The highest quality standards must also be fulfilled by the suppliers. In the selection of supplies, quality, price and delivery reliability are all considered, as well as fast and flexible availability. This relates not only to raw materials, but also to the services of machine, plant and tool constructors. The more reliable the machines operate and the faster the required injection moulds are available, the more expeditiously orders can be processed. Cellpack technicians and machine operators are instructed by the machine manufacturers in the operation and maintenance of the equipment.

The quality management system also relates to the controls of occupational safety and environmental protection. In an annually published report, all data about energy and water consumption, waste volume and emissions is collected and used as the planning basis for continuous optimizations.

Cellpack Asia

To meet the market demand, an additional production site in Asia was set-up. The new production is in operation since March 2008 with a built-up area of 2300m². The factory is located in Melaka, Malaysia (100km south of Kuala Lumpur). It is a copy paste design similar to the production plant in Germany. In this factory, production of cable accessories with silicon rubber technology with a special field control principle for medium voltage application are produced. The goal is to supply the Asia-Pacific market directly whilst simultaneously maintaining a high level of customer proximity.

Production equipments are exactly the same as in Germany, all well known brands which are used by Cellpack for many years and the reliability is on the highest possible level. Cellpack engineers from Germany were on site for the technology transfer to Melaka, as well as to provide the training until the operation was running successfully.

The multicultural society in Malaysia provides a perfect platform for a very skilled team being able to cover all technologies and processes, as well as several regional languages (English, Bahasa, Chinese and Indian).

The facility was built to fit the long term requirements, especially in size so that production and warehouse expansions are easily and fast extendable. The warehousing facility provides now space for 500 pallets and can be doubled if required to meet further demands. The production output could be tripled within a very short time as well if required. All is set in place to meet increasing demands and to provide timely deliveries.

In founding this new company, Cellpack is also reacting to the increased logistics costs. Furthermore, some of the raw material suppliers are based in Southeast Asia. The ideal location and the infrastructure in Malaysia support fast and cost effective deliveries to all areas within Asia-Pacific.

The implementation of SAP® Business One allows our operation to achieve an up-to-date and unified view, improves business-process efficiency and takes advantage of growth opportunities. A link to our group head quarter, customers and suppliers brings further advantages to all involved parties.

Cellpack in Melaka is certified according to ISO 9001:2000 Quality Management System by SGS and accreditation body of Department of Standards Malaysia (DSM), United Kingdom Accreditation Service (UKAS) and Swiss Association of Quality and Management System (SAS).

The set-up has further a large show room and training room facilities so that essential product knowledge can be passed to partners and customers.

All sales and marketing activities for Asia-Pacific are provided by our team from Cellpack Far East Ptd. Ltd. in Singapore. The team has more than 10 years of experience with cable accessories within the region. Cellpack Far East manages a series of countries through distributors and has increased the overall market share with this strategy.

Melaka

Office



Show Room



Training Room



Kitting Room



Coating Room



AC Voltage Testing



Injection Process



Warehousing



Singapore

Cellpack, Singapore



Sales and Marketing



Technical Support



Show Room



The Cellpack group of companies

The headquarters, Cellpack AG Electrical Products is located in Villmergen, Switzerland. Part of our export business is handled from here, in addition to central tasks such as IT support. The main location for production, research and development is located in Tiengen, Germany. A branch office in the vicinity of Dresden (Germany) produces silicone molded parts. Cellpack sales companies are based in Netherlands, Spain, France, as well as Poland. The worldwide marketing of our products is also performed in partnership with distributors in a total of 50 countries.

Villmergen, Switzerland



Ludres, France



Barcelona, Spain



Tiengen, Germany



Warsaw, Poland



Almere Buiten, Netherlands



Close to the market, close to the customer

The Cellpack product range is clearly and comprehensibly presented in two categories. By telephone or by e-mail, customer service can answer technical questions about all standard and series products or troubleshoot problems with specific applications. Difficult cases are dealt with by the Application Engineering department, which is also the competent contact partner for special developments and consultations. These experts often monitor customer projects and proposal directly on site.

For non-routine tasks and challenges, there are technicians in industry, petrochemicals, mining and shipbuilding. Cable connections are often located outdoors and are exposed to rain, salts, chemical substances or extreme mechanical loads. In deep mining and wherever it is prohibited to work with heat or naked flames, alternatives to heat-shrink connections are used. Cellpack fulfills the internationally valid guidelines and holds all of the industry-specific permits.

Thanks to close customer contact, targeted product management and observation of market developments, the requirements for new or adapted products are recognized at an early stage. After the analysis and development of appropriate solutions, the market introduction is performed hand in hand with our customers.



Cellpack transmits know-how

One of our key concerns is that our end customers – i.e. electrical fitters and technicians – are not only familiar with Cellpack products, but also know how to use them safely and correctly in all respects. Defective assembly, functional failures or even occupational accidents must be avoided at all costs. One of the hallmarks of Cellpack is that, in technical training on the main themes of low- and medium-voltage, product information is given, product characteristics are demonstrated and the correct assembly procedures are shown. In addition, hints on planning and instructions on installation techniques are imparted.

Our target groups are trainees, entry-level employees and experienced installers to whom new products are presented and explained. The training courses are held in house by us or at the customer's premises. Naturally, the sales partners and employees must also be kept up-to-date with the latest knowledge. Cellpack is a regular participant in workshops at electronics trade fairs. Trainees are invited to these fairs for practical tryouts of the installation steps required for the processing of cable accessories.

Outlook: Go with the flow – only faster

Regardless of the energy carriers with which current is produced, the existing networks will never cease to be expanded worldwide. In Switzerland and Germany, as well as in other countries, the supply networks are in many areas outdated and therefore in need of renewal. In addition to the standardization of network voltages, lead cables must also be replaced by plastic-sheathed electrical cables.

Cellpack remains on a path towards growth, both in relation to the increased market presence in regions like Eastern Europe and Asia-Pacific and also in terms of its product offerings. A step in this direction is the new production facility in Melaka, Malaysia. The timely and cost-effective supplying to customers within Asia-Pacific from Malaysia, promises to result in a clear competitive advantage.

Where the quality and safe processing of the products play the decisive role, the goal is to ensure that there can be no alternative to Cellpack. Therefore, our considerable research expenditure will also be used in the future for one off technical innovations and to ensure the highest worldwide quality standard.

The plan for the coming years is to develop an increasing number of applications to be used inside buildings. And, of course, we will continue with the development of our renowned connection technologies and with the improvement of our product characteristics. As an expanding enterprise, Cellpack sees the need to optimize its process management – the control and planning of orders, production capacities, materials, personnel and finances. For this purpose, our operational IT environment will be adapted so as to create the basis for the future successful activities of the enterprise.



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