

EFIBCA is the voice of the European FIBC industry.

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CONFERENCE REPORT I

EFIBCA Open Meeting in Delhi7

EFIBCA called to its periodical conference, and more than 80 industry representatives followed the invitation on 12th February to Delhi. Nine speakers from across the FIBC industry shared their knowledge on a broad variety of issues with the audience.



Bhawna Agrawal, Danish Embassy in Delhi, talked about Business and Corporate Social Responsibility.

The first conference session was dedicated to the dynamic developments of the regional markets.

During the course of the day issues like corporate social responsibility, regulatory aspects concerning the use and production of FIBCs as well as the development of an innovative material were raised.



More than 80 industry representatives attended the EFIBCA Open Meeting 2013 in Delhi.

EFIBCA Open Meetings take place in periodical order with the intention to inform and to strengthen the network of all players active on the European FIBC market. The next EFIBCA Open Meeting will take place in Duesseldorf on 7 May 2014, during the Interpack Fair. The focus will be put on CSR topics. a.schaefer@efibca.com

CONFERENCE REPORT II

EuPC Seminar on Food Contact Regulation



This two days' EuPC (European Plastics Converters) seminar aim was to inform and educate people in the plastics food packaging industry on what they need to know about current legislation and its implementation.

Presenters came from across industry and authorities – representing the EU Commission, Member States, suppliers, converters, and recyclers.

The participants were presented on the first day with the insights on the Implementation and Control of Food Contact Regulation in Member States.

The second day was focused on the practical approach to the regulatory compliance and was followed by a compelling and heated Q&A session where 25 questions were discussed in depth by panel of experts. Due to the close cooperation with EuPC, all EFIBCA members profited from reduced participation fees.

EuPC will keep the interested parties updated with the latest advancements within the Food Contact legislation. a.schaefer@efibca.com

CONFERENCE PREVIEW

EFIBCA Basic Workshop on EU regulations for Food Contact and Dangerous Goods FIBCs

Prior to the Annual Meeting in October 2013, EFIBCA will offer an interactive workshop on various EU regulations for its members. The course is open to EFIBCA members and geared to FIBC manufacturers and traders, producing for or trading with EU members states. Various expert speakers from the industry will introduce important aspects. More information will follow in due time. a.schaefer@efibca.com

LEGISLATION, STANDARDS & TECHNOLOGY

Amendments to Regulation (EU) No 10/2011

The "Commission Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food" has been reported in EFIBCA-Newsletter No 02, May 2011. This regulation applied from 1 May 2011. In the meantime the EU-Commission has made several amendments to this regulation.

The 1st amendment (Commission Implementing Regulation (EU) No 321/2011) concerns the restriction of use of Bisphenol A in plastic infant feeding bottles. This directive entered into force in April 2011.

With 2nd (Commission Regulation (EU) No 1282/2011 of 28 November 2011) and 3rd (Commission Regulation (EU) No 1183/2012 of 30 November 2012) amendments the union list (positive list) of Regulation No 10/2011 has been updated.

The 4th amendment, also an update of positive list, is in the pipeline and should be available in July 2013.

Furthermore, the EU-Commission plans already the 5th amendment, which will focus on the topics dual-use-additives, definition for nano and article 19 of Regulation (EU) No 10/2011 "Assessment of substances not included in the Union list".

We will keep you informed on the developments of food contact regulation.

f.luan@kunststoffverpackungen.de

ISO standards for packaging and environment published

In January 2013 the International Standardization Organization ISO published six international standards on "Packaging and Environment".

For the first time there exist worldwide accepted standards dealing with the optimization of packaging, their reuse and different options of recycling after use.

The initiative was started in 2007, mainly by the standardization organizations in China, Japan and South Korea. After two years of preparative work with the European partners, the standardization process started at the end of 2009 and was successfully finished after three years. The secretariat for this project was held by Sweden and China.

The following six standards were elaborated; they are available either at the International Standardization Organization in Geneva or at the national standardization institutes which are members of ISO:

- ISO 18601 Packaging and the environment – General requirements for the use of ISO standards in the field of packaging and environment
- ISO 18602 Packaging and the environment – Optimization of the packaging system
- ISO 18603 Packaging and the environment – Reuse
- ISO 18604 Packaging and the environment – Material recycling
- ISO 18606 Packaging and the environment – Energy recovery
- ISO 18606 Packaging and the environment – Organic recycling

In content these ISO-standards correspond largely to the European standards of 2000 and 2002 (standards EN 13427-13432). This is the reason why the European standards represented an important basis for the elaboration of the international standards. The differences between the CEN- and ISO-standards do not have practical relevance so that the standards are basically comparable. It remains to be seen to what extent the ISO-standards will be applied in international trade. Please contact the EFIBCA-secretariat in case customers or authorities should require conformity with the ISO-standards.

In the inner-European trade we now have the paradoxical situation of two equivalent standards by CEN and by ISO. It is the intention of the European packaging industry to adopt the ISO-standards also as CEN-standards, which would invalidate the old CEN-standards 13427-13432.

However, this assumes a complicated harmonization process with the EU-commission as the EU-commission had launched the elaboration of the CEN-standards 13427-13432 in the late 90s. As harmonized standard these CEN-standards have almost legal status, i.e. compliance with the standard is equivalent to compliance with the essential requirements stipulated by the EU Packaging and Packaging Waste Directive. The significance of the CEN-standards is also underlined by the fact that three EU-member states (UK, France and Czech Republic) are requiring the application of these European standards for environment.

Therefore it is possible that competent authorities will ask for a Declaration of Compliance with the CEN-standards for packaging deliveries into these countries. A form sheet in English for such a Declaration of Compliance is available at the EFIBCA secretariat. For the time being the special status of the harmonized standards in Europe does not allow to refer to the ISO standard in European trade. For more information about the CEN and ISO standards and their application contact a.schaefer@efibca.com

MARKET NEWS

FIBC Import Statistics 2012

Compared to 2011, the value of FIBC imports to the EU dropped by 2.3% to a total of 331.5 Euro in 2012 (see table 1).

Table 1 Total Import of FIBC¹ to the EU27 (value)

	2012	2011	Change in %
	Mio. €	Mio. €	
Imports to the EU27	331.5	339.2	-2.3%

Source: EFIBCA 2013 (based on Eurostat)

The decrease of exports to the EU affected the absolute production figures in the top 6 exporting countries. Nevertheless, Turkey consolidated its leadership as FIBC exporter to the EU with a slight increase of market share to now approx. 40% (see table 2). India remained in second place with stable export figures, followed by China. Remarkably, Vietnam was able to increase the value of imported FIBC to the EU despite of the general drop. In the contrary, Thailand has lost market shares and lost its position among the top 6 exporting countries to the EU.

Table 2 Top 6 Exporting Countries of FIBC to the EU27 (by value)

		2012		2011	
2012 Rank	Country	Mio. €	Import Share	Mio. €	Import Share
1 →	Turkey	132.5	40.0%	133.2	39.2%
2 →	India	118.0	35.6%	119.2	35.1%
3 →	China	30.5	9.2%	35.8	10.6%
4 →	Bangladesh	17.7	5.3%	15.5	4.6%
5 →	Serbia	10.3	3.1%	10.8	3.2%
6 ↗	Vietnam	5.8	1.7%	5.6	1.6%

Source: EFIBCA 2013 (based on Eurostat)

- no change in rank compared to the previous year
- ↗ up in rank compared to the previous year
- ↘ down in rank compared to the previous year

For more details please contact a.schaefer@efibca.com.

INTERNAL NEWS

New EFIBCA members

EFIBCA warmly welcomes the FIBC manufacturer **Umsaree Texplast** from Gujarat/India, as new EFIBCA member.

In the last newsletter we announced the new associated membership of **Christoph Burckhardt AG**, from Switzerland with a spelling mistake. Please see above for correct spelling.

EFIBCA 30th anniversary

EFIBCA was founded in 1983 and it soon became noted on the market for the publication of the first international FIBC standard in 1985. Today, EFIBCA counts almost 40 member companies. As a modern industry association its key objectives are to represent the interests of the industry towards authorities and the public. Read more about the EFIBCA anniversary in the next newsletter issue.

SPECIAL THEME

FIBCs as a factor for success

by Alexander Crone-Rawe

Ever since humans came down from the trees and began to stockpile items for later use or consumption, they have needed to not only store and transport their belongings, but also protect them from outside influences. In particular, this has meant developing containers for food and other things which are suitable not only for the volume or mass of the goods involved, but also for long-distance transportation.

Over the course of history the days of simple fur pouches and woven baskets have given way to an era in which entire industries are dedicated to the efficient storage, optimized transportation and product-specific, environmentally friendly handling of goods.

FIBCs have established themselves as an intelligent, cost-efficient solution around the world. The greatest benefit they offer is an almost infinite range of product-oriented designs and sizes. FIBCs generally have 1-4 drawstrings, filler necks at their upper ends and in some cases an outlet at

their bottom end which simplifies goods handling at special filling and emptying stations. Filler neck lengths are variable and depend on the filling and emptying stations used.

The load-bearing capacity of an FIBC currently stands at between 500 kg and 2000 kg, with volumes of up to 3 m³ available. Made from high-density, tear-resistant polypropylene textile, their considerable load-bearing capacity and ease of handling makes FIBCs an attractive choice for both storage and transportation applications. When empty they can be compacted down to a small size. Their low net weight and reusability are important from the perspective of cost reduction and environmental protection.



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Depending on the characteristics of the bulk goods to be stored or transported, FIBCs can also be fitted with interior liners which comply with the utmost in hygiene standards. Liners are designed to not only protect the goods they contain, but also prevent damage to the surrounding environment. Perforated liners suitable for goods requiring ventilation (e.g. wheat) are also available. The equipment of the top or bottom end of the liner with a special neck which can be pulled automatically or semi-automatically over filling pipes at filling stations renders it almost impossible for ultra-fine, powdered or hygroscopic products in particular to come into contact with oxygen, water or other environmental components which may damage them. Experts also refer to liners of this type as "form-fit liners" due to the precise fit between their neck and the filling pipe. Neck lengths and the design of the top and/or bottom end of the liner are currently not subject to binding standards, with Russia the only region where essentially uniform neck lengths are used. There is therefore scope for greater technical cooperation between logisti-

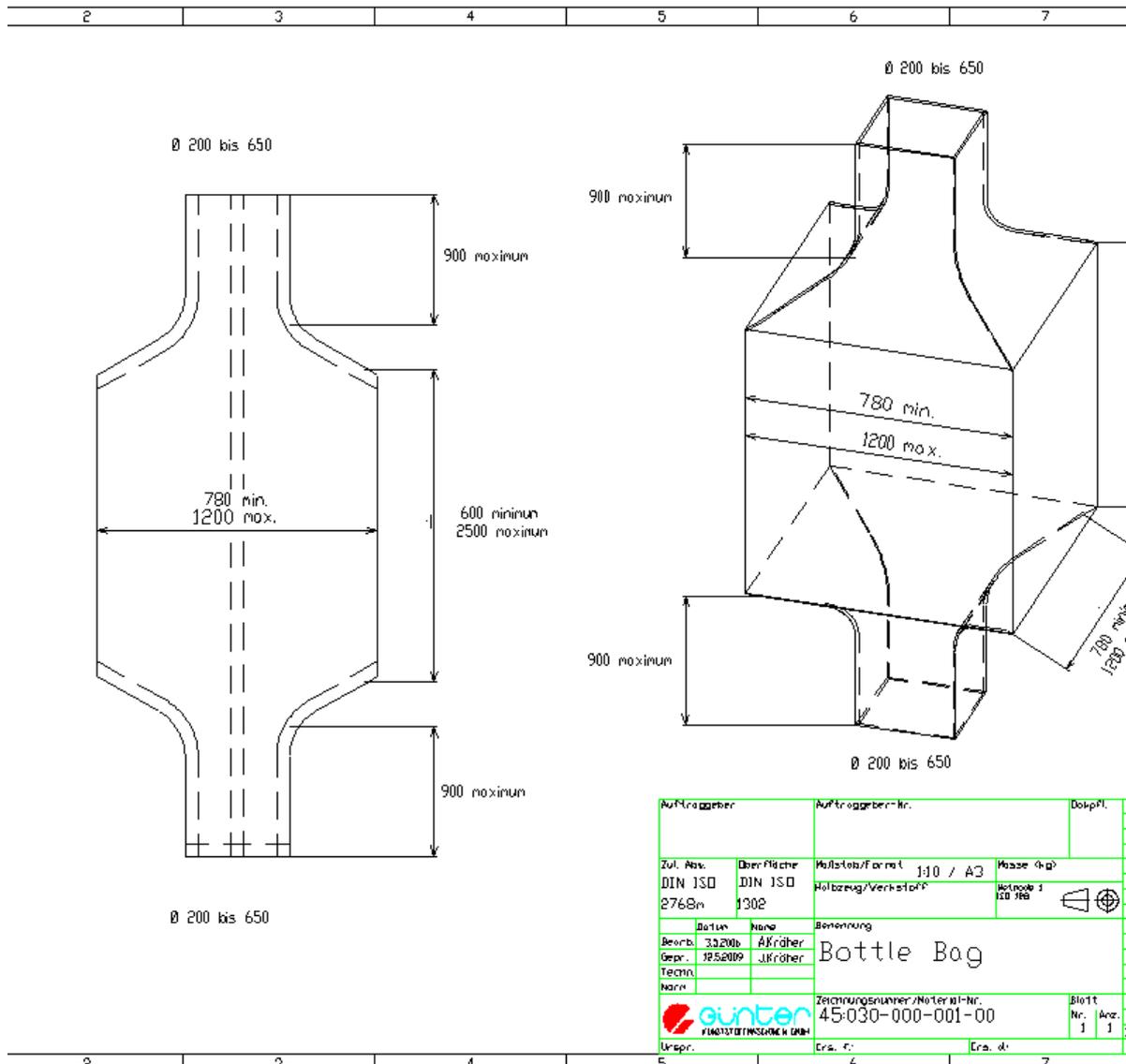
cians, liner producers and manufacturers of filling and unloading systems in this area. At present the global market is dominated by mechanical engineering firms which offer plastic welding machines for the production of liners featuring a variety of neck lengths at their top and/or bottom ends.

Technological developments in the field of liners currently focus on three particular areas: reductions in film thickness, the tailoring of film characteristics and the optimization of the strength of welded seams. The structure of the film used to manufacture a liner is always determined by the type of goods or fluids the latter is to be filled with and the way in which it is to be transported and stored. Technological advances in this area need to be accompanied by systematic knowledge transfer between plastics experts, mechanical engineers, film manufacturers and logisticians, as

this will ensure the more efficient exploitation of synergies and in turn the quicker and more precise fulfilment of client requirements.

A key reason for the reduction of film thicknesses from an initial 180 μ to the current 60 μ or less is the resource efficiency delivered by the accompanying material savings. The resultant decrease in FIBC tare weights has also led to a not-insignificant reduction in transport costs. Reduced film thickness also facilitates savings where energy consumption is concerned, as thinner films require a far shorter welding time and cool down more quickly.

In future the challenge will be to maintain or improve tear resistance and impermeability whilst also achieving further reductions in film thickness. The aim must always be to follow the plastification



of plastic granules with the extrusion of a film which is free of tension and distortion and characterized by precisely defined, consistent thickness, flatness and directional stability throughout the roll. Such high-quality films are a prerequisite for high-quality welded seams.

Specific film characteristics are now achieved using a variety of techniques. One example is the mixing of additives into the plastic granulate during the plastification process. Amongst other applications, this technique facilitates the manufacturing of antibacterial liners for the foodstuffs industry and pharmaceutical products. Antistatic agents prevent liners from becoming electrostatically charged, which in turn stops them from attracting undesirable dust and dirt particles. Soluble (inorganic or inorganic) and insoluble pigments can be used to colour the liner material, whilst the addition of flame retardants modifies its flammability. The strength, elasticity and hardness of a liner material can be enhanced by adding various fillers such as carbon black, chalk, graphite or glass fibres to the plastic granulate. The addition of lubricants makes it easier to extrude the plastic, whilst stabilizers protect the liner material from the effects of light, UV radiation, heat and other damaging influences which may lead to undesirable ageing.

The production of liners using classical single-layer films (with or without additives) is increasingly supplemented by the manufacturing of multi-layer composite films for modern applications. Their intrinsic barrier properties make multi-layer films suitable for the transportation or storage of specific bulk goods under defined conditions, and they therefore represent an interesting liner material option. To give an example, multi-layer films consisting of numerous PE layers and a barrier layer composed of gas-impermeable plastic protect the aroma of the goods they contain. Gas impermeability is also important where the shipment of bulk goods via air freight is concerned, as FIBCs with gas-impermeable layers are better equipped to withstand higher pressures and pressure fluctuations. Composite films can be produced by means of lamination, which begins with the application of an adhesive layer to the carrier film. Once they have been dried in a drying tunnel and cooled using a cooling roller the layers are combined with the aid of a lamination unit. Multi-

layer films can also be produced by means of coextrusion, which involves the spraying of the material using a fishtail nozzle.

It is nevertheless to be noted that even the best film with the most outstanding properties is useless if its seams are weak. The strength of welded seams is therefore crucial to the quality of both the liner and the bag as a whole. German technological know-how is at the head of the global pack in this field, and clearly demonstrates the difference between the simple welding of a seam and the application of a fully developed technological process. This is underlined by the fact no complaints regarding seams welded by a Günter machine have ever been received in Germany.



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Film manufacturers have clearly recognized the benefit of high-quality films, and are now investing in cutting-edge extrusion technology. The result is even more consistent, high-quality films which exhibit almost identical thickness throughout the roll. The quality of the film is assured by the thermal impulse welding technique used as standard by all Günter plastic-processing machines. The technique involves the use of an NiCr heating strip with a width of 5 mm and a thickness of 0.2 mm, which is fitted to a sealing bar. Welding occurs when the sealing bar and its electric heating strip are pressed firmly onto the films and the heating strip is heated by an adjustable pulse of current. This heats the films to melting temperature and welds them under pressure. The result is a stable, impermeable welded seam with a width of approx. 3 mm. Where required heating strips with a width of 8 mm or 10 mm can also be supplied. Though a second welded seam is sometimes requested for specific applications, Günter does not recommend this approach as

it does not guarantee any improvement in the impermeability and load-bearing capacity of the liner. It is also a waste of time and effort – because a single seam welded by a Günter plastics processing machine is all you need!

The sealing bar is essentially operated with the aid of an electronic control system featuring integrated pulse devices and lifting and pressing mechanisms. The option to store all system control data of relevance to the welding process is a particularly client-friendly feature, as it simplifies system operation and shortens set-up times.

A liner is the interface between bulk goods and an FIBC. Its characteristics have a decisive influence on the way in which an FIBC can be used over the course of the logistical process, and it therefore represents a key commercial factor. Any raw materials and costs saved in this area support the economic success of companies who choose in favour of FIBCs with liners.

About the Author

Alexander Crone-Rawe is the Managing Director of Günter Kunststoffmaschinen GmbH. Having trained as a wholesale and export specialist, he



has now spent over 23 years in the plastic processing industry and taken Günter to the head of the international pack. The company is a leading player in the field of mechanical engineering, and in particular liner production technology.

K 2013 coincides with Günter's 50th anniversary, and will see the company reaffirm its market leadership with a range of new technological highlights.

UPCOMING EVENTS

FIBC Calendar

EFIBCA-Council Meeting

15 October 2013, Berlin
www.efibca.com

EFIBCA Basic Seminar on relevant EU regulation for Food Contact and Dangerous Goods FIBCs

15 October 2013, Berlin
www.efibca.com

EFIBCA AGM

16 October 2013, Berlin
www.efibca.com

5th EFIBCA Open Meeting 2014

07. May 2014, Duesseldorf
www.efibca.com

Feiplastic

20.- 24. May 2013, São Paulo, Brasil
www.feiplastic.com.br/

Chinaplas

20.-23. May 2013, Guangzhou, China
<http://www.chinaplasonline.com>

Orange: EFIBCA meetings

Lilac: external conferences

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EFIBCA Open Meeting 2014

on **7 May 2014** in Düsseldorf –
one day before interpack!

**EFIBCA is proud to announce its fifth Open Meeting
on 7 May 2014 at CongressCenter Duesseldorf (CCD).**

The EFIBCA Open Meeting is the perfect platform for exchange and networking across the FIBC industry. Various expert speakers will bring you up to date on a broad variety of business aspects, ranging from the raw material market to end-of-life solutions of FIBC.

More information, more details on the program and registration on www.efibca.com

EFIBCA

