

INTERVIEW AT THE COMPANY'S QUALITY ASSURANCE MANAGER

A range of high quality items: this is what Bormioli Rocco & Figlio is able to propose to its different customers, thanks to its consolidated know-how and experience gained within the demanding pharmaceutical sector. Paolo Zucchi, the company's Quality Assurance manager, explained how the energies invested to improve Quality (intended as product and service) are aimed at meeting the customer's requirements, while taking care of the environment.

What kind of requests in terms of quality are made by companies?

The requests made by companies differ depending on the sector of reference. Certainly, the pharmaceutical sector is characterized by the most extreme requests in terms of Quality. The pharmaceutical companies are faced with increasingly rigorous market demands: they are asked to combine the technical perfection of functionally designed containers with the new packaging needs of healthcare products, which must be child-proof, senior-friendly and, on request, unique and recognizable. This led pharmaceutical businesses to ask packaging producers to guarantee indispensable properties, such as chemical stability, dimensional accuracy and mechanical resistance, without forgetting the aesthetic aspect.

As to the food market, the hygiene of the pack and its processability are crucial. However, for a sector in which the pace of packaging lines has become increasingly fast, the observance of dimensional specifications is now a prerequisite to ensure high quality tightening performance.

been very sensitive to the pack aesthetics, asks for distinctive and often innovative customization, as well as the cleanliness of the item and special care for its package, so as to preserve the perfection of the manufactured product.



Paolo Zucchi
Quality Assurance manager

Can quality be considered as a market key drive?

In a mature market like the packaging one, competition is challenged by reducing the price or, for those companies, such as Bormioli Rocco, which have chosen to position themselves in the high market segment, by focusing on Quality. This is particularly the case of the pharmaceutical market, in which the gradual take over of small and medium-sized companies by multinationals contributed to the spreading of the Quality culture within the whole production chain. This is the reason why our Company has decided to work with a total quality perspective, starting from the product conformity guarantee, without neglecting the package, to the service, which is conceived in terms of support to the Customer and supply of the necessary documentation.

How does Bormioli Rocco respond to your demand for quality?

The continuous innovation, the long experience and the consolidated technical skills gained in the pharmaceutical sector have allowed the development of a very good know-how and the recognition of Bormioli Rocco as a Quality partner. The pharmaceutical companies have always considered our B.U. as one of their external units which had to comply with their requirements: this led to the creation of a widespread Quality culture, intended as product and service.

Can you give us some practical examples?

The focus on Quality also includes details: starting from the habit of requiring suitable clothing for operators (head caps, gowns ...), which has consolidated over the years, to the construction of compasses on the access doors, for a better and constant protection of the environment from external agents and contaminations. Moreover, we are particularly proud to be one of the first companies providing that all the goods coming out of its warehouse is exclusively delivered on treated and dried pallets. This will be in early compliance with standard ISPM15, which will be enforced all over Europe in order to guarantee the greater wholesomeness of packages.

In any case, one must not forget that the Company has always taken structural measures to ensure the better Quality of products, for example, with the implementation of class 1.000 clean rooms for particle control, which are mainly used for the production of ophthalmic packaging.

In particular, which are the Quality pluses the customers attribute to Bormioli Rocco?

First of all, the company is recognized for its production of high-quality packs and its strong drive to innovation, which allows it to be at the forefront and always maintain very high quality standards.

Furthermore, a Customer satisfaction survey carried out with our customers showed special appreciation for the detailed technical documentation, the clear formulation of our offers, as well as our reachable /available staff. These are all very important characteristics for the creation of a solid cooperation between Customer and Supplier.

On which certifications does the company rely?

The Company is particularly at the forefront in terms of certifications, as is shown by the implementation times. The Company started to approach the ISO 9000 certification as early as in 1992 when, in Italy, people did not talk yet of certification because there were no bodies recognized at European level. Thanks to the fruitful cooperation with a French consulting company, the Company Quality System was implemented and, in July 1994, we were granted the certification by the Istituto Italiano Plastici, a certifying body specialised in the plastic sector. important news is that, in August 2006, B.U. Plastics was granted the ISO 9001:2000 certification by the British Standards Institution, a body recognized all over the world. The are several reasons which made us decide to rely on BSI. In particular, it was our willingness to give an increasingly international mark to our activity while preserving our local traditions, which have always represented a real asset for Bormioli Rocco. Another important record scored by B.U. Plastics was the certification of conformity with the requirements provided for by European Directive 43/92/CEE on medical devices, which was granted in 1998 by the Istituto Superiore della Sanità.

***Can you give us some hints at the next steps the company will make from the point of view of quality improvement ?***

In the future, we will continue to spread the Quality culture within the Company, with special focus on GMP rules (Good Manufacturing Practice) and the improvement of our service to the Customer. In the near future, we also wish to obtain the environmental certification, for which we have laid the ground over the past few years.

In conclusion, B.U. Plastics will still be committed to the creation of partnerships with customers aimed at the development of the best possible environmentally-friendly strategies, thus providing one more service to the health of the planet!

NEW CLOSURE SYSTEM FOR OPHTHALMIC PRODUCTS



Ophthalmic
new closure system

The Plastic Division of the Bormioli Rocco Group is currently studying an advanced closure system for ophthalmic products. Whereas the traditional packaging is normally made out of a bottle, a tamper evident cap and a dropper, this new product allows the company to be delivered a cap and a dropper assembled in a single piece to be pressure assembled on the bottle.

This innovative closure system has several advantages. From the logistic point of view, the handling of the customer's inventory is considerably reduced. Given that there is only one item code, storing spaces are reduced and reorders are optimized (thanks to equal quantities of caps and droppers).

The packaging activity which was normally organized in two phases (insertion of dropper and tightening of capsule) now consists of only one phase: as a result, the work station for dropper insertion is eliminated while the cap station is kept remarkably simplified thanks to the pressure assembly operation.

There is also the possibility to obtain 100% control of the perfect positioning of the cap through a simple mechanical sight placed at the end of the line, besides checking the presence, with no additional costs, of the dispensing hole through the vision system.

Since cap and dropper are manufactured as assembled items, the particle count phase taking place during the filling, which is compulsory for packaging class-A sterile products, is eliminated.

The production and logistic advantages allow the increase of production efficiency, as well as the simplification of the item handling and management processes with resulting economic benefits. This advantage is enhanced by a single sterilization cost per cap and dropper together.

There are also further benefits for the end user.

The product appears to be particularly user-friendly: just undo the cap, which is inserted under pressure during the pack production phase, and proceed with dispensing the product. On the one hand, this utilization method leaves the consumer's habits unaltered.

On the other hand, unlike the traditional system, it guarantees a perfect seal, even with the minimum and incomplete tightening of the cap.

The protection of the quality of the product contained in the bottle is also achieved thanks to the form and size of the inner part of the cap.

In conclusion, we are faced with a type of innovation for the pharmaceutical market that will lead to a greater protection of the formulation integrity, besides granting a user-friendly product to the end user and advantages, such as efficiency and a simpler management to pharmaceutical companies.

Productions advantages

- The work station for dropper insertion is eliminated.
- Increased in-line production capacity thanks to the greater simplicity and rapidity of capsule assembly by pressing instead of by twisting it.
- 100% control of cap perfect positioning.
- The particle count phase during the filling is eliminated.

Logistic advantages

- Management of one single item code in stock.
- Smaller room is occupied during storage.
- Optimization of reorders.

Advantages for the end-user

- A perfect seal, even with the minimum twisting of the cap.
- Packaging utilization method unaltered.



Drops line

INNOVATION ON PP AND PEN

PP

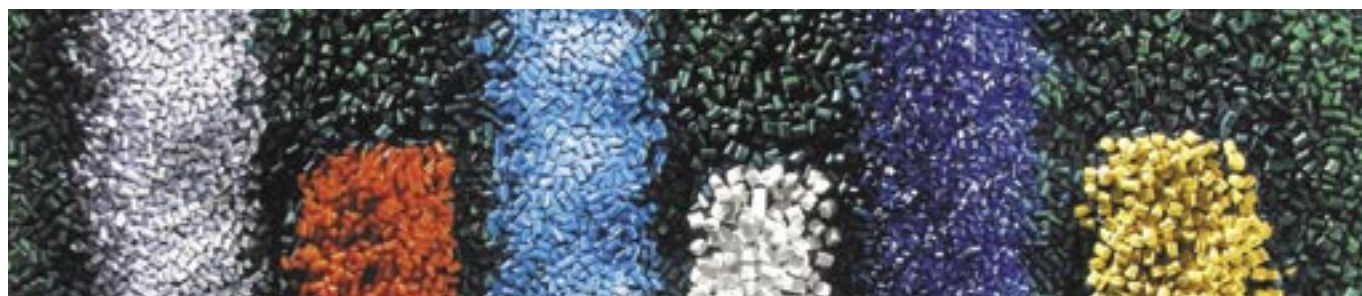
The R&D department of B.U. Plastics is presently evaluating the opportunities offered by Polypropylene, also relying on the partnerships formed with its resin suppliers over the years.

PP is, in fact, safe and chemically inert. It is used both in the coloured and translucent forms and, albeit less transparent than PET, it is particularly appreciated for its properties in terms of water vapour barrier, its thermal resistance and good mechanical strength.

By building on these intrinsic characteristics of the material, Bormioli Rocco succeeded in achieving exceptional results, thus further improving these properties and obtaining a pack which withstands the sterilization process in autoclave without undergoing decomposition or loss of performance. At the same time, PP bottles featuring comparable transparency with PET have been produced. The technological development and the scientific rigour applied to research, on the one hand, and the resin suppliers, on the other hand, have also led to a study on the introduction of nanotechnologies in the plastic sector. Special nanocomposites, which were suitably selected and introduced within the PP polymer matrix, were tested with the objective of improving the performance of containers. This innovation is aimed at fostering the barrier capacity not only to water vapour but also to oxygen and gases in general. As to mechanical strength, tests carried out on Bormioli Rocco standard samples have shown significant improvement in terms of drop resistance, bottle cracking stress and scratch resistance, thus overcoming the weaknesses of PP.

These improvements will translate into better packaging processability and help to meet safety, quality and aesthetic requirements, especially after considering that the new material can be mixed with any type of colorant. In the light of all this, it is easy to envisage many potential applications of this invention to completely different markets. Suffice it to think of the continuous search for the aesthetic perfection of packaging to understand the importance that the new scratch resistance together with the characteristic brightness of PP will have in the cosmetic industry. Similarly, the potentials of the complex and demanding pharmaceutical market, which day after day calls for greater hygiene, quality and safety guarantees, are not to be neglected. These requirements found an answer in the high mechanical strength the material shows also after being subject to the thermal stress resulting from autoclavage.

Furthermore, one should not underestimate the endless potential applications in the food sector, ranging from the use at low and high temperatures (pasteurization and similar) to the use within the framework of communication strategies, such as the idea of showing the product inside the package, as well as the barrier it provides to the different types of gases with the purpose of preserving organoleptic properties and obtaining longer shelf lives. The Bormioli Rocco Plastic Division's offer to customers includes capsules (including Child Proof and Tamper Evident), accessories and bottles made with this material.



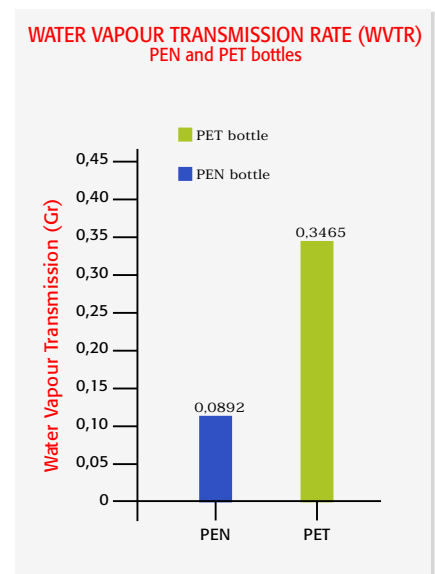
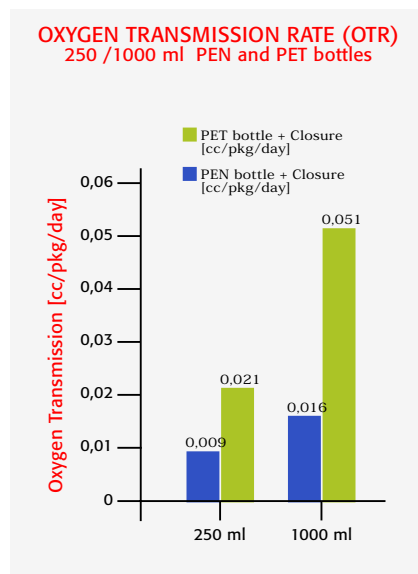
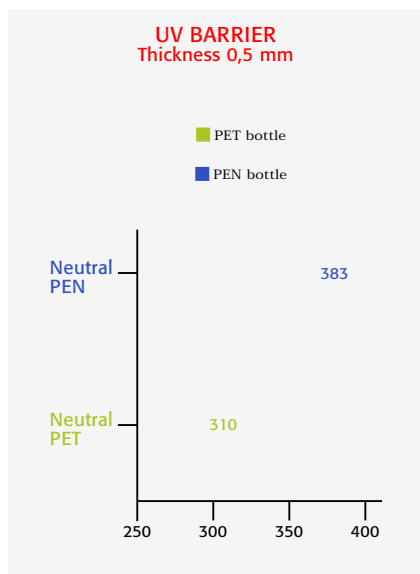
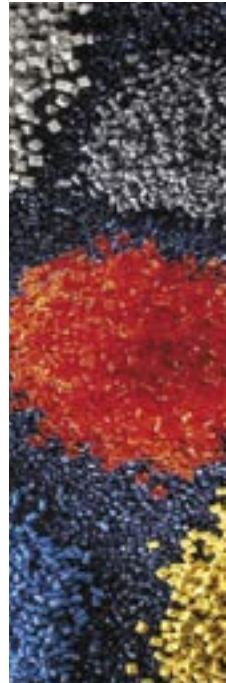
PEN

Bormioli Rocco is also one of the few packaging companies which produces PEN bottles. This material provides excellent performance in terms of barrier, in particular, to water vapour, it is more resistant under hot-fill conditions and it offers a better response to sterilization than PET. Moreover, unlike other polymers, it maintains the transparency properties of glass containers. This material is susceptible of several applications. For example, PEN bottles can be used as packages for valuable pharmaceutical products or products requiring careful handling, such as anaesthetics, which demand excellent mechanical and chemical properties (in particular, a low interaction between content and container) with the plus of infrangibility.

However, it can have an application in the cosmetic sector as well: R&D is evaluating the possibility to offer PEN aerosol bottles for the cosmetic sector.

Thanks to its mechanical and chemical properties, in fact, this material is resistant to pressure and, unlike aluminium, allows highly valued characteristics in the world of body care, such as transparency and aesthetics, to be well exploited.

On the basis of its production experience and the new market needs, Bormioli Rocco hopes to turn ideas into research, production processes, sometimes new patents and, as a result, into successful products together with its customers. The company's strong drive to innovation is fostered in partnership with suppliers and customers and is achieved through the continuity of the industrial history which considers trends and market challenges as real opportunities.



If you are interested in asking for samples or further information, do not hesitate to contact the R&D area at packaging@bormiolirocco.com

COSMEETING, AS WELL AS ICSE - CPHI PARIS, LUXEPACK AND PHARMAPACK, I.E. REAL WINDOWS TO UNDERSTAND THE BUSINESS

Just one month after the end of the important trade exhibition on luxury packaging held in Monaco, we are drawing conclusions on the participation of our company in the major trade fairs of the pharmaceutical and cosmetic/perfume sectors, such as CPhI Paris, Cosmeeting and, obviously, Luxepack.

The whole Bormioli Rocco group took part in these important events, with the Plastic B.U. presenting its offer on pharmaceutical and cosmetic packaging in close cooperation with the Glass Container B.U. and thus informing customers on new operational possibilities and the wide range of packaging solutions.

By constantly focusing on the evolution of the market, the company has succeeded in creatively responding to its customers on new developing with them innovative solutions, such as Child Proof Plus and Tamper Evident Plus. These are lighter, simpler and cheaper types of closures which were favourably welcomed by many companies and granted our company with a European exclusive right for the production of PET ACTIVE AND PASSIVE BARRIER packs destined to the pharmaceutical sector. The performances of the active plus passive barrier are encouraging with respect to shelf-life; as a consequence this can be an interesting solution for over-the-counter products, such as diet products or functional foods. All this was our answer to the high competition characterizing the plastic packaging market, which led many companies to develop, on the one hand, increasingly performing packaging materials and, on the other hand, to gradually reduce the average weight of the packaging so as to provide our customers with further cost-cutting solutions.

Cosmeeting and Luxepack also provided good food for thought in better understanding the future development of the cosmetic and perfume packaging sector over the next few years. The trade fairs have shown future trends: in the stands, slender and plain lines coexisted with more complex and baroque forms. Not only the "natural and BIO" elements, but also humour and glamour, together with their urban flavour, have been rediscovered. Colours, forms and smell contribute all together to the creation of a pack marked by a strong identity, whatever this is meant to be. In particular, new materials and decoration techniques are increasingly tried out in order to develop packaging with graphic patterns, textures and sophisticated and attractive colours. To meet these requirements, B.U. Plastics, in cooperation with its partners, has developed additives capable of giving off a scent and changing colours according to the temperature, as well as pigments capable of producing special chromatic effects, such as iridescence. Cosmeeting and Luxepack have also been an opportunity to present the latest products and materials, such as the recent extension of the standard range of volumes and models and the customized packs.

These have been developed with the customers and are able to grant an exclusive look to their products, thus giving further evidence of the production tradition of Bormioli Rocco. After CPhI Paris, Cosmeeting and Luxepack, we must not forget the next appointment facing B.U. Plastics. Next January, the company will be busy with **Pharmapack (January 24th to 25th, STAND C6)**, a trade fair devoted to the pharmaceutical sector, from a technical/scientific perspective, where Bormioli Rocco wishes to present itself as a careful and reliable partner.

We are looking forward to seeing you!



Stand CPhI in Paris 2006