

Press release

For a PVC-free future

Bremen, July 2011 – The fact that there is a great interest in PVCfree sealing materials was already established at the Interpack in 2008 and impressively confirmed at this year's exhibition. The market is ready for PVC-free alternatives. An increasing number of sectors is already preoccupied with this issue. For example Actega DS, a company which has been manufacturing PVC-free sealing components for plastic and metal closures for several decades. Such as the latest innovation in the form of PROVALIN[®], a PVC- and plasticizer-free closure seal sealant for wide-neck jars. Following development and complex long-term testing, this compound free of PVC and phthalates has been on the advance as the first solution of its kind.

Within the framework of a trade conference at the Interpack 2011, the company presented its various PVC-free alternatives to the PVCbased closure solutions of the past thereby answering numerous questions by international guests from the packaging industry, food production and trade as well as the media.

Question: Why have a PVC-free alternative in this of all areas? The call for such a measure has been rather subdued to date.

Actega DS: PVC has been the subject of discussion for quite some time now. Even during production, processing personnel are exposed to undesirable substances, e.g. on account of the high volatility of plasticizers used in PVC-compounds. Meanwhile, we are also aware of the problem of undesirable substances contained in these plasticizers migrating into food. And recycling PVC also poses various problems such as the possible formation of dioxin. These are merely the most important of many reasons why we started to look



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Contact Product information

Dieter Grundschöttel

Tel. +49 421 390020 Fax +49 421 39002-79 provalin.ACTEGA.DS@ALTANA.com

ACTEGA DS GmbH Straubinger Straße 12 28219 Bremen Germany Tel. +49 421 390020 Fax +49 421 3900279 provalin@actega.com www.provalin.com



for PVC-free alternatives. Ultimately, current EU legislation is yet another key, if not decisive argument in favor of such alternative solutions.

Question: Are there any other PVC substitutes for use in glass container lids?

Actega DS: While developing PROVALIN[®], we examined all of the possibilities from every conceivable aspect. From liquid solutions through PU and water-based formulations. Considering our desire to comply with or even outperform legislative specifications which have become even more stringent with the current EU 2011/10/EG Directive, PROVALIN[®] is by current standards not only the best but the only solution available. Including in terms of its range of applications, production efficiency and cost structures.

Question: How do costs compare with those when applying PVC compounds?

Actega DS: Taking consideration of all cost factors, only minor additional costs are incurred. On the one hand, the price per kg of PROVALIN[®] will be higher than for a range of PVC plastisoles. On the other hand, this is relative considering its lower film weight, higher efficiency, lower energy costs and less waste thereby resulting in minor additional costs which should be feasible if overall environmental friendliness is also taken into account. On supermarket shelves, this is reflected in mere fractions of cents for consumers who will be more than prepared to pay this minimum as regards extra costs considering the aspect of safe packaging and safe food.

Question: Going back to the PVC-free alternative – apart from the aspects of consumer protection, what are the other advantages of the sealing mass presented here?

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Actega DS: There is a whole range of advantages. For one thing, PROVALIN[®] was developed with the aim of replacing PVC with PVCfree sealing compounds complying with EU guidelines and guaranteeing a high degree of food safety, whereby small packaging, long storage times and unfavorable framework conditions all needed to be taken into consideration. What's more, the TPE technology we use requires significantly less energy and space as gelling ovens are dispensed with. We have succeeded in considerably reducing both the carbon dioxide emissions and waste volumes incurred. The process of working with granulate is cleaner and without any effect or even restriction as regards storage stability. Nor are there any viscosity problems as is the case among plastisols. Ultimately, less sealing material is required without any negative impact on performance. And last but not least: as liquid plasticizer is not required, the potential for migration by undesirable substances is minimized. And to top it all off, the material is recyclable.

Question: Talking about recycling – is the compound biologically degradable?

Actega DS: No, but it can be recycled in an environmentally-friendly manner. Research is in fact currently being carried out as regards a biologically degradable solution. But it will be some time before marketable solutions are available.

Question: Where lids are concerned, not only the seal but also the varnish comes in contact with the food. The demand for BPA- and melamine-free varnishes has increased lately. Do you offer them?

Actega DS: Varnishes free of PVC and plasticizers are currently in use. BPA- and melamine-free alternatives are currently being developed by our sister company, Actega Rhenania, where they are

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already being tested and will be ready for the market in the near future.

Question: The suitability of a product often only transpires after long test phases. With regard to sealants which have also been tested for lid seals, we only have to think of the as yet unsatisfactory results associated with ESBO. Have you conducted any long-term tests as regards storage safety, vacuum retention, opening characteristics, migration or taste, for example?

Actega DS: Yes, the physical features can be compared. And when it comes to taste, we can claim that there is no negative impact. And we know what we're talking about. We have been manufacturing compounds for the food industry for more than 35 years which is why we know that the secret lies in the formula of raw materials. As far as migration is concerned, we can confirm that it is significantly less than that of sealing materials containing PVC. This has also been confirmed in long-term tests for the 1241 and 1288 variants as well as by independent test institutes.

Question: What stage are you currently at with PROVALIN[®]?

Actega DS: Several million seals are already on the market and these figures are on the increase every month. Sales to German customers are increasing successively – from TO 66 mm since early 2011 to TO 53, 63, 48, 58 and 70 mm as of Q3 2011 and TO 51 and 82 mm by the end of the year.

Question: What measures still need to be taken as regards other food manufacturers and bottling companies, for example?

Actega DS: Parallel to expansion of the various diameters, interested filling companies will be supplied with sample caps for tests enabling large commercial deliveries immediately following successful testing.

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Question: What other developments are there in the compound sector?

Actega DS: On account of the great demand for PVC-free systems in the area of watery and acidic products as well as spreads – some of which are filled under special conditions – we are developing new variants which comply with these modified applications even better.

In the area of baby food, an optimum seal is currently being developed within the framework of a multilateral cooperation going by the working title of PROVALIN[®] 1771.

About ACTEGA

The ACTEGA group belongs to ALTANA AG. The ACTEGA Coatings & Sealants Product Division develops and produces coatings and sealants for the packaging and graphic arts industries. These products lend an attractive appearance to materials such as paper, paper board, plastic and metal. They also provide clearly defined chemical and physical properties to the materials' surface.

Graphic arts: The main customer for the products developed, manufactured and sold by ACTEGA is the packaging industry. ACTEGA is the market leader in overprint varnishes and is the technological leader in the rapidly expanding sector of waterbased sealants for flexible packaging. In this connection, ACTEGA products not only ensure that the packaging will look appealing, but also that the contents will remain fresh longer.

Converting specialties: ACTEGA is already the world's leading vendor of sealants for closures and glass containers; ACTEGA is the technological leader when it comes to water-based sealants for cans. These products are used to make seals between the contact surfaces, such as glass on metal (bottle closures) or metal on metal (can lids). They ensure that the contents and other substances such as CO2 remain inside the packaging, and any contaminants remain outside.

www.actega.com www.provalin.com www.altana.com

Press contact: !Wir: Kommunikation und Unternehmensberatung GmbH, Dagmar Schumann, Mühlenkamp 4, 22303 Hamburg, +49 40 2792402, dagmar.schumann@wirkomm.de

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