

rise in medical conditions that weaken bladder control.

In May 2016, H B Fuller launched a stretchable adhesive, which goes under the trade name Conformia, for disposable adult incontinence garments. The Conformia 9800 delivers a more comfortable fit without any tightness due to its elastic features. According to H B Fuller, this new stretchable HMA removes the need for the elastic layer or film layer in the traditional five-layer construction of disposable undergarments. This results in a less bulky, more discreet product for the user.

This segment is also being targeted by Bostik with its new polyolefin-based HMA for the disposable hygiene market named Brilliance. It has been optimised to hold elastic strands in place in both nappies and adult incontinence articles.

Packaging

Carton and case sealing – often cartonboard as primary pack and corrugated board as secondary pack – is by far the main application for HMA and counts for an estimated 80% of the HMA volume for packaging applications.

In primary packaging there is a significant trend to move from heavier rigid formats to lighter flexible designs – like pouches. Having now seen a deep penetration of baby food and pet food applications, these new formats are now making inroads into other applications, like sauces, dried goods and even ready meals.

The motivation for the switch is that it saves on material costs for the converter, who builds the packaging and helps reduce weight and, hence, logistics

costs, when the item is shipped. This evolution will have a negative impact on HMA consumption, as flexible formats make little use of this adhesive type, for two reasons. First, HMAs are often unable to bond the flexible packaging material – plastic, foils and other low surface energy substrates – used in this type of packaging. Second, they do not have the right temperature performance.

Many international companies are now adopting tough sustainability targets and, for many, packaging represents an area where they can demonstrate this commitment. Consequently it is likely to be one of the first segments where material saving technologies are introduced – and this will directly impact the prospects for corrugated case and cartonboard formats. The potential gains are significant – a Smithers projection shows that if 20% of world rigid packaging switches to an HMA application technology that reduces load by 20%, it would cut world consumption of HMAs by nearly 20,000t.

Chemical substitution

One increasingly important hurdle for the global adhesives industry is ensuring compliance of formulas with increasingly tough chemical restrictions. This process is most advanced in the EU, via the REACH Regulation 1907/2006 and the CLP Regulation 1272/2008.

This has directly affected HMAs through, for example, the REACH prohibition on polycyclic aromatic hydrocarbons (PAHs) – like naphthalene, anthracene, phenanthrene and pyrene – which came into force in late December 2015.

While the timeline for phase-outs is designed to give companies time to substitute to safer components, the process of registering a chemical as safe and collecting safety data in global supply chains, is time-consuming and expensive. A 2016 European Commission study, issued in July 2016, estimates that regulatory activities in 2004-2014 added 12% to the cost of chemicals produced in the EU. [<http://www.cefic.org/newsroom/top-story/EU-Commission-study-shows-high-regulatory-costs-for-European-chemical-industry/>]

The prospect of further regulation was raised recently by members of the European Parliament who have called for a specific regulation, addressing the safety of adhesives used in food contact packaging. [<http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P8-TA-2016-0384+0+DOC+XML+V0//EN&language=EN>]

These and all other factors affecting world demand for hot-melt adhesives – by base type, end-use and geographic region – and qualitatively and quantitatively are assessed in *Analysis in The Future of Hot-Melt Adhesives to 2021* [<http://www.smithersapex.com/market-reports/the-future-of-hot-melt-adhesives-to-2021>]. This report is now available to purchase. **PPCJ**

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FEICA publishes Use Maps to help improve communication under REACH

FEICA, the Association of the European Adhesive and Sealant Industry, has published Use Maps to help registrants understand how substances are typically handled in this industry and to support Chemical Safety Assessments under REACH that reflect relevant and realistic information on adhesives and sealants.

As a signatory of the Chemical Safety Report/Exposure Scenarios Roadmap charter, FEICA is committed to improve the supply communication on the safe use of chemicals. Use Maps are typically generated by downstream user sector organisations, in order to ensure representation. The FEICA Use Maps provide, in a harmonised and structured way, information on typical uses and conditions of use of adhesives and sealants that aim to support registrants in generating meaningful exposure scenarios.

Divina Gómez, Regulatory Affairs Manager at FEICA, said that she “urges registrants to use the data contained in the FEICA Use Maps to prepare or update their REACH dossiers”. All information on the FEICA Use Maps can be found on FEICA’s website <http://www.feica.eu/our-priorities/key-projects/reach.aspx>.

Information on ECHA’s Chemical Safety Report/Exposure Scenarios Roadmap can be found at <https://echa.europa.eu/regulations/reach/registration/information-requirements/chemical-safety-report/csres-roadmap>.

For more information on the Use Maps packages, visit the ECHA use map webpage <https://echa.europa.eu/csres-roadmap/use-maps/templates-and-submission>, which provides a library with the available ‘sectors use-packages’. www.feica.eu

Low activation temperature organic thixotropes

Thixatrol AS 8053, PM 8054 and PM 8056 are the latest additions to Elementis’ portfolio; these additives are particularly suitable for modern protective coatings and sealants. The new organic thixotropes are easy and quick to activate and are suitable for use in a variety of systems that contain little or no solvent. The key features of these rheology modifiers are activation temperatures down to 35°C, high structure build and thixotropy at low loading levels and excellent structure conservation upon storage.

The novel Thixatrol additives allow for faster and more flexible throughput at the manufacturer’s site by means of quicker thixotrope activation at lower processing temperatures. The lower required processing temperatures allow for additional energy savings during manufacture.

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