

PaperImpact creates a metallizer's section

Varberg, Sweden 15.09.2011; PaperImpact annual Conference:
From Green Fibers to Packaging Brand Value;

PaperImpact, the European Trade Association for Speciality Paper Manufacturers, announced setting up a new section for the European paper metallizing industry. Paul van Emmerick, CEO of AR Metallizing, explained on behalf of his colleagues how metallizing enhances the paper product and how paper metallizers can contribute to the mission of the association.

The companies Glatfelter, Torraspapel and AR Metallizing - the new group resulting from the merger in 2009 of the vacuum metallizers Alupa (Belgium) and Rotoflex (Italy), are joining PaperImpact as full members. Together with Brigl & Bergmeister, a longstanding member of PaperImpact, they now form a dedicated section within the PaperImpact association. Paul Van Emmerick explained to the conference that the metallizers reached out to PaperImpact because of its dynamic track record in effective communication and positioning through its sustainability policy.

For PaperImpact - whose earlier nine full members operate 18 plants in 8 countries and cover the majority of all speciality paper manufacturing in Europe - this is an important step forward. Metallizers form a very consolidated market. Having the large majority of this market join the association will both strengthen and broaden its outreach and contribute to its mission of 'unfolding the potential of paper'. It is the first time that converters, thus non-paper producers, join the association as full members. Earlier the pulp producer Södra Cell and the paper chemical supplier Imerys joined the organisation as associate members.

So much in common with speciality paper

Speciality paper producers and metallizers have so much in common. They have similar markets. "Less than 5% of our turnover is not in paper", says Paul van Emmerick at AR Metallizing. They have similar product benefits, the same competing substitutes and they share similar industry issues in the geo-economical field and the value chain. Both products are also positioned as renewable materials.

Sustainability is actually a motor for the success of vacuum metallizing. While some cigarette brands will use 6,3 micron aluminium foil to laminate 30 gr paper for their inner liner, others opt for metallizing that uses a thousand times less aluminium. That more than halves the global warming potential of the packaging and consumes a third less energy. Metallized paper is clearly positioned as a sustainable alternative to PET, BOPP and other films and to aluminium foil to paper. "Metallizing adds additional value to paper and opens up new markets to substitute plastic by paper."

Furthermore innovation is key to manufacturers of speciality papers. Metallizing is also entering a dynamic phase in which research and development lead to innovation. A few examples. Glatfelter recently launched 'Gepagreen'. The fiber-mix, where its base paper consists of up to 35% recycled materials and the remaining 65 % of fibers are from sustainable forestry. By applying a special coating AR-Metallizing has obtained a 100% recyclability certification. "This year alone we have filed six patents. Our very first", said van Emmerick. He indicated that "metallizers can contribute to PaperImpact's mission by re-starting statistics, sharing communication, positioning and lobbying efforts."

More about metallizing

The traditional core market of metallizers - wet glue labels - is being enhanced by activities in self-adhesives and in-mould labels. Now, the metallizing technology moves into functional coatings and barriers for more sustainable packaging materials, replacing foil and film. With scientific solutions, exploiting the conductive and other characteristics of the vacuum metallization, the needs of other markets, such as health care, construction and automotive are now also being addressed.

The technology

Metallizing of coated base paper results in a half-finished product that can be confectioned further by embossing, slitting and packaging. The metallizing process itself has three stages: Pre-coating, vacuum metallizing and post-coating. The pre-coating consists of adding one or more layers to the base paper using a solvent or water based lacquering. This is a continuous process that run at 400 to 700 m/min while humidity is strictly regulated to control flatness. In the second metallizing stage highly pure aluminium is evaporated under vacuum (5×10^{-4} mbar) at some 1.300°C and deposited on the pre-coated paper which passes over a cooling drum. This batch process runs at speeds between 700 and 900 m/min. In the final stage a topcoating is added to stop the oxidation of the deposited aluminium and to prepare the surface for printing. All the while humidification is controlled. Using additives can steer particular properties. Special coatings are used for particular, functional characteristics.

Market developments

Core markets for vacuum metallizing of paper are high wet strength label paper for beer and water labels as well as high gloss label paper for luxury labels. The treatment offers 'premiumization', 'differentiation' and 'visibility' to the product. Secondary markets are found in tobacco inner liner, gift wrap and can wrappings. Growth markets are metallized packaging materials, flexible packaging, self-adhesive base material, functional packaging,... "Metallizing the in-mould label increases the shelf life of food products."

The metallized paper market shows a continuous annual growth rate of nearly 5%. This growth is matched in Asia and Latin America while the US market is recovering after dipping half a decade ago. Currently EU annual production is estimated at some 90.000 tons. While innerliner is stagnating at some 20.000 tons, there is a continuous gradual growth in labels. On the other hand a variety of new technical products is rapidly entering into the market. A 'conservative' estimate would have this tonnage to triple in only a few years time, to nearly 15.000 tons by 2013.

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