

klöckner pentaplast press release

FOR IMMEDIATE RELEASE

First rice husk & polymer composite film: Klöckner Pentaplast launches Pentadecor® Films – made of Resysta®

Montabaur, Germany – May 25, 2016 – In line with its ambition to meet the demands of consumers worldwide by exploring emerging trends and developing new technologies, Klöckner Pentaplast now expands its portfolio by introducing its new innovation: Pentadecor[®] Films – made of Resysta[®]. This product is the first rice husk and polymer composite film. It is less than one millimeter thick and can be laminated on a variety of surfaces. Pentadecor[®] Films – made of Resysta[®] meet the growing demand for durable materials for indoor and outdoor applications. Visitors of the Carrefour International du Bois (Nantes, France) who would like to know more about the new product will find representatives of Klöckner Pentaplast at the booth of Global Wood at H4-H12 from June 1 – 3.

For consumers around the world, the question of whether or not products are manufactured sustainably is of great importance. At the same time, they expect high quality and aesthetic design. "People expect a natural look that evokes a sense of well-being and comfort – whether relaxing inside their living-room, sitting outside in their garden, or in the outdoor area of a restaurant. That makes them feel more comfortable and relaxed," Klöckner Pentaplast's Group Director Development Packaging & Specialties EMEA and Asia Rainer Schlicht says. "This is why consumers prefer the look of wooden flooring and furniture." However, at the same time, they worldwide expect low-maintenance materials with high life expectancy that are weather-and water-resistant, especially in outdoor applications. Schlicht continues: "A further trend we see in the market is moving clearly towards smooth surfaces with individual designs and a focus on splinter-free, safe materials."

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Benefits all along the value chain

Axel Müller, Market Development Manager for Europe, Middle East and Asia at Klöckner Pentaplast, explains: "With our new film, we are setting standards in terms of quality and highest aesthetic demands." Pentadecor® Films – made of Resysta® are based on a renewable plant based material. Furthermore, they meet consumers' demand for a natural appearance: they look and feel like high quality wood, while at the same time being weather- and water-resistant. Müller continues: "Responding to global megatrends, many manufacturers and retailers are rethinking how they do business: cost-cutting system solutions, lower stock keeping units and sustainable products are in demand. With Pentadecor® Films – made of Resysta® we have the perfect answer – with new system designs and easy-to-store products." In 2016 the film was awarded with the Red Dot, the international distinction for high design quality.

Successful collaboration leads to efficient manufacturing process

Today, consumers can choose between a broad variety of extruded Natural Fiber Composites (NFC) and Wood Plastic Composites (WPC) profiles. However, up to now, the production of films in 300-800µm thickness has not yet been possible due to the poor rheological behavior of highly filled compounds. In close collaboration with Resysta, the producer of a rice husk-based PVC filler (ARF), the technology and innovation department of Klöckner Pentaplast came up with an appropriate solution. Resysta GmbH has been developing the PVC/rice husk composite Resysta for over 10 years and has made available composite solutions for a wide variety of PVC extrusion technologies worldwide. Rainer Schlicht sums up the outcome of the successful collaboration: "For Pentadecor® Films – made of Resysta®, we developed, optimized and patented a stable production process. Working as one team allowed us to create this innovative film within just one year."

About Pentadecor® films – made of Resysta®

Developed both for indoor and outdoor applications, Pentadecor® Films – made of Resysta® embodies the positive properties of its two material constituents. The thermoformable natural fiber filled film serves as a wood veneer or WPC alternative. The film – made from rice husks – helps to achieve sustainability goals. Further high quality additives ensure maximum water and weather resistance, flexibility and robustness. In addition, it is sandable to a smooth wooden

finish, and can be refined in a variety of colors. A direct pigment application on the surface ensures a long lasting UV-resistance. With this development in the field of natural fiber composites (NFC), the existing converting technologies (i.e. extrusion, injection molding, compression molding) were successfully extended to a new and patented calendering process. The film is available in reels and formats. Considering customers specific needs, further material developments and customization are possible.

About Klöckner Pentaplast

The Klöckner Pentaplast Group is a global leader in providing packaging, printing, and specialty solutions serving the pharmaceutical, medical device, food, beverage, and card markets among others. With a broad portfolio of rigid plastic films and services powered by innovation, Klöckner Pentaplast plays an integral role in the customer value chain by marketing and protecting product integrity, safety, consumer health, and, ultimately, brand reputation.

Klöckner Pentaplast continuously earns high EcoVadis ratings, indicating the company's commitment to Corporate Social Responsibility throughout its global operations. kp's practices rank in the top 8% of suppliers within the respective industry classification of plastics.

commitment to Corporate Social Responsibility throughout its global operations. kp's practices rank in the top 8% of suppliers within the respective industry classification of plastics manufacturing and in the top 12% of over twenty thousand suppliers evaluated by EcoVadis. In benchmark comparison within the plastics manufacturing industry, kp is ahead of the industry average in all four areas assessed: Environment, Labor Practices, Fair Business Practices, and Responsible & Sustainable Procurement. Klöckner Pentaplast is among the top 5% of suppliers assessed in industry classification for Environmental Practices and in the top 9% of suppliers assessed in respective industry classification of Fair Business Practices.

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