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# **USER REPORT**

# ANA-U, Gleisdorf, Austria

# ANA-U relies on injection molding technology from the WITTMANN Group to make molded parts from natural materials

Under the "Green Quality" brand, the company ANA-U based in Gleisdorf, Austria produces molded parts from natural ingredients consisting to 100 % of renewable materials. The parts are manufactured on an all-electric injection molding line from WITTMANN BATTENFELD.

ANA-U, established in 2007 by Ewald Ulrich, specializes in the development, production and global sale of cards, card printers and electronic components, as well as the development and design of lighting solutions for stationary retailers, shopfitters, museums and galleries. In addition to its facility in Gleisdorf, the company has another production plant in Austria and one in Shenzhen, China. In Japan, the company's products are sold via a local agency.

Innovation is a guiding principle at ANA-U. The founder and CEO of ANA-U GmbH, Ewald Ulrich, holds 15 patents in the areas of chip cards, thermal printing and security alone, and is regarded as the inventor of thermo-rewrite technology (TRW) for chip cards. A special coating applied to the cards makes it possible to erase card contents and subsequently reprint the cards. By using this type of technology, ANA-U makes a substantial contribution to waste prevention.

For just under 3 years, ANA-U has been producing molded parts from natural substances under the "Green Quality" brand. These consist to 100 % of plant-based renewable materials and are compostable just like wood. Typical products are event cards, voucher cards, wood-to-wood connecting parts and plastic-free housings. In this way, ANA-U has delivered, for example, 40,000 access passes for students of Karl Franzens University in Graz for the summer semester of 2022. For next year, the production of cards with imbedded electronics is planned as well.

The materials ANA-U is using for its Green Quality products grow again within one year. At present, the company keeps 100 tons of material in stock for its customers.



The material mix is composed in-house according to each customer's specific requirements. To provide a further benefit for the environment, Ewald Ulrich offers his customers to take back and recycle the Green Quality parts. The recycled material is then mixed with virgin material.

The Green Quality molded parts are manufactured on an all-electric machine of the EcoPower series from WITTMANN BATTENFELD with 1,600 kN clamping force. The *EcoPower* 160/750 is equipped with a fully integrated WITTMANN W918 robot, which removes the parts and deposits them on a conveyor belt. A WITTMANN TEMPRO basic C90 temperature controller and a GRAVIMAX 14 gravimetric blender are also integrated in the machine's UNILOG B8 control system. The line is completed by a COOLMAX C40 cooling device, an ATON plus 30-70 VS segmented wheel dryer, a FEEDMAX plus 206-40 material loader and a DOSIMAX MC Balance metering device. In addition, the machine is fitted out with the HiQ Melt software package for monitoring the material quality, a feature of prime importance in processing plastic-free and recycled materials to enable fast response to viscosity fluctuations. A G-Max 12 granulator from WITTMANN is used to recycle sprue, faulty parts and returned parts.

Ewald Ulrich and his son Sebastian, who is mainly responsible for the Green Quality product line, are very satisfied with the equipment from WITTMANN BATTENFELD. The most appreciated feature apart from the machine's energy efficiency and low noise level is its high control accuracy. Ewald Ulrich comments: "Molded parts made of renewable raw materials require production machinery with high precision and extended options for parameter setting. This is provided in every respect by the *EcoPower* 160 from WITTMANN BATTENFELD. In addition to the high quality of the machine, the perfect training programs and excellent customer support were decisive factors in reaching all our ambitious project goals."





**Fig. 1** from the left: Ewald Ulrich, CEO of ANA-U, Roland Pechtl, Regional Sales Manager WITTMANN BATTENFELD, Sebastian Ulrich, Project Manager Green Quality projects ANA-U



Fig. 2: Metering, material loading and drying technology from WITTMANN



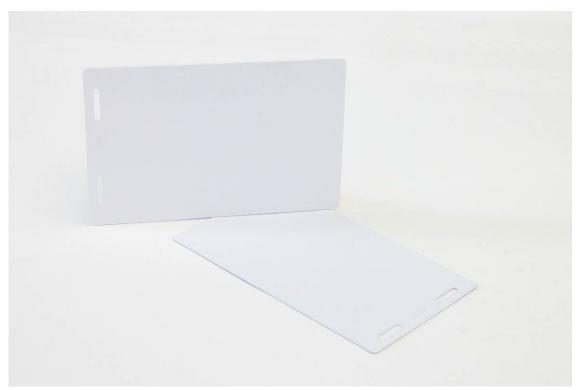


Fig. 3: Event cards made of biodegradable material



Fig. 4: Bio access passes for the students of Karl Franzens University Graz, printed with ink



# The WITTMANN Group

The WITTMANN Group is a globally leading manufacturer of injection molding machines, robots and auxiliary equipment for processing a great variety of plasticizable materials – both plastic and non-plastic. The group of companies has its headquarters in Vienna, Austria and consists of two main divisions: WITTMANN BATTENFELD and WITTMANN. Following the principles of environmental protection, conservation of resources and circular economy, the WITTMANN Group engages in state-of-the-art process technology for maximum energy efficiency in injection molding, and in processing standard materials and materials with a high content of recyclates and renewable raw materials. The products of the WITTMANN Group are designed for horizontal and vertical integration into a Smart Factory and can be interlinked to form an intelligent production cell.

The companies of the group jointly operate eight production plants in five countries, and the additional sales companies at their 34 different locations are present in all major industrial markets around the world.

WITTMANN BATTENFELD pursues the continued strengthening of its market position as a manufacturer of injection molding machines and supplier of comprehensive modern machine technology in modular design. The product range of WITTMANN includes robots and automation systems, material handling systems, dryers, gravimetric and volumetric blenders, granulators, temperature controllers and chillers. The combination of the individual areas under the umbrella of the WITTMANN Group enables perfect integration – to the advantage of injection molding processors with an increasing demand for seamless interlocking of processing machines, automation and auxiliaries.

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