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New projects and business ventures **with IMAL PAL**

OSB plant under construction in Tomsk, Russia

The IMAL PAL Group is on installation phase for a complete oriented-strand board (OSB) plant for Latat, a wood-panel producer based in Tomsk, Russia. The project features a 30m-long continuous press, which is designed and manufactured in the north of Italy, with components only being sourced from Europe.

The Latat contract is a landmark project for IMAL. The line will have an annual OSB capacity of 250,000m^3, and according to a statement earlier this year by Sergey Zhvachkin, Governor of the Tomsk region, the project has a value of RUB5 billion and will create about 600 jobs. About 260 trucks will be involved in transporting the equipment to the site in Siberia. The first board is hoped to be produced by March 2022, and full production to be reached two months later.

Latat already operates a medium-density fibreboard (MDF) plant at the Tomsk site, with an estimated annual production capacity of 330,000m^3. It bought the assets on the site, previously operated by Partner-Tomsk, in 2017.

The IMAL PAL group continues its relationship with Italian board producer I-PAN, supplying a continuous press line to the company about eight years ago for the manufacturing of OSB and laminated-strand board (LSB).

I-PAN stands for Innovative Poplar Low Density Structural Panel, and the company's main objective is the design of a wood-made lightweight panel, adopting 50% of its volume with recycled wood and the remaining 50% with poplar wood by using the upper part of a tree that is commonly underused. To this purpose, a new manufacturing process will be designed, and innovation for existing resins will be defined in order to require less energy during the drying and pressing processes, minimising volatile organic compounds (VOC) emission and reducing the overall cost of production.

The success of the line has led to further negotiations with IMAL about a potential new second OSB line, and according to IMAL, it is believed that I-PAN is seeking permissions for the second plant.

For all these projects being discussed, the IMAL PAL Group is not promoting traditional drum dryers, but its belt dryers instead. To ensure the right dust and VOC emissions, drum dryers have to be equipped with electrostatic filters, and they run with a high temperature. IMAL's belt dryer, which the company is installing at Latat, runs with a low temperature – about 95°C compared to 300-400°C for the drum dryer. Because of that it has lower VOC emissions, so this solution is more ecologically friendly. For example, it ensures dust emissions below 5mg/m^3 of air. The group also emphasised that the belt dryer technology has been modified and updated to allow the system to work in a low material output moisture content of just 1-2%.

The group has so far manufactured about 30 belt dryers in a wide range of capacity, for example, from 3 tonne/h water evaporation in Costa Rica, up to about 30 tonne/h. Three belt dryers have been installed in France, plus now IMAL has received a new order for two belt dryers from one of the largest groups in Europe. Furthermore, a unit for Spanish chipboard and melamine board manufacturer Tableros Hispanos is now under construction, and further belt dryers from customers in Belgium and Ireland are under construction.

Another project being worked on is in northern Italy, which focuses on pallet blocks and pressed woodchip pallets. The project is worth over €35 million, and features much of the same technology as a particleboard plant. It uses 100%

Installed belt dryer by IMAL PAL

polymeric methyl diphenyl diisocyanate (PMDI) resin to remove formaldehyde emissions.

IMAL has designed a single opening press with mould, including forming and gluing, to produce pallets completely from woodchips. The pallets are a standard 1.2mx0.8m size, and are made as one piece in a mould. The press uses steam to accelerate the process. This new pallet will represent an innovation since it will compete not with a one-way pallet but against the more standard Europallet. In terms of strength, IMAL believes that the new pallet should be able to carry loads up to Europallet specification.

The group recognised that this innovation feeds into an important world trend: recovering and maximising the use of wood waste. The company has focused importance on this area, citing the circular economy concept and European targets to eliminate avoidable waste by 2050, believing that there is a necessity to recover the huge amount of wood waste in all the countries.

OSB-LSB plant for I-PAN

Meanwhile, another project which involves the supply of equipment to a new wood fibre insulation board plant in Sardinia is almost completed. IMAL reported that the pallet block plant business is going well, having success with a French customer who installed a line recently and has now placed orders for two further lines. Installation is finalising for the two additional lines, and that gives IMAL PAL Group a total of six pallet block extrusion lines in France.

The core business for IMAL is still supplying gluing and dosing systems for existing and new plants. For example, it recently received an order for five complete gluing systems from Swiss Krono at different sites around the world. Its quality control for thickness, density and surface quality equipment is also a mainstay, as is its wide range of laboratory equipment. And the DynaSteam mat pre-heating system continues to grow its customer application reach globally. Today, about 135 units are installed worldwide. P