CONTINUING INNOVATION IN CASCADED USE OF WOOD

Name:
Unilin

Actors:
Private companies

Country:
Belgium

Funding:
N.A.

Unilin manufacturers particleboard panels that go into furniture, kitchens and construction boards . Unilin's boards meet all 5 of these new guiding principles (sustainability, resource efficiency, circularity, new products and new markets and subsidiarity). As Unilin is based in Belgium where virgin wood is a scarce and less sustainable resource, the company has invested heavily over the past years in new technology in order to turn around its production capabilities to process recycled wood. The company has now integrated an enormous state-of-the art cleaning facility to clean recycled wood to reach the desired quality needed for raw materials that go into particleboards.

Sieving and sifting helps Unilin to obtain the highest possible percentage of recoverable wood, but the recycling line goes much further. Several magnets through the recycling and production process remove ferrous materials, and for non-ferrous, induction and new generation magnetsare used. Unilin invests constantly in new technologies to improve results and to increase the percentage of recycled wood in their particleboards. Thanks to recently installed NIR-camera's, they can now even guarantee the removal of the tiniest pieces of plastic foils.

Unilin today uses more than 85% of recycled wood in its particleboards, replacing what was previously virgin wood. The remaining 15% consists of residual wood namely thinning wood that is unusable in other branches of the timber industry or timber from sustainable wood management and roadside maintenance.

Raw materials are collected close to the production sites within a 400km radius. The local import of wood is made possible thanks to smart partnerships (goal: the "cleanest" supply chain possible) with suppliers, which include recycling yards, demolition firms, the packaging industry and even Unilin's own customers, which means furniture manufacturers can prolong the lifecycle of their products.

Wood residue from the cleaning process that cannot be used as a raw material is instead used as a renewable energy source for the biomass plants that Unilin has next to the production site, that power and heat the production sites and sometimes even surrounding companies. Other wood residues from sanding and processing are either re-inserted as raw material, or optimally re-used as end-of life dust that is a source to heat up a drying process. The result is a substantial reduction in the need for fossil fuels, such as natural gas.

Through this efficient use of resources, Unilin has been able to drive sales into more distant markets than before and to introduce the theme of circular wood-based panels into the European interior decoration market.

For more information see: www.unilinpanels.com