New Technology: Production of Panels from Wood Wastes

At the Ukrainian Scientific-Production Woodworking Association a technique has been developed for manufacturing panels for the facing of walls and ceilings in industrial, public and residential buildings.

The raw material consists of comminuted wood wastes (sawdust and shavings) which are being used mainly as fuel or are simply hauled away to a dump. Carbamide-formaldehyde resin is used as the binding agent.

The technology of producing the panels is simple. The shaving is dried to a moisture content of 2 to 4 per cent and mixed with resin. The resulting wood-glue mixture is dried and then pressed in molds, with simultaneous cladding of the surface with a decorative film. After removing the panels from the press, the roughness is removed from the edges, following which they are processed on grinding machines.

The facing panel technology was first introduced at the Berdichev Mechanical and Chemical Engineering Association, where a comparatively small quantity of wood, approximately 6,000 cubic meters, is processed annually. However, even at this volume, up to 800 cubic metre have been haulded away to the dump every year. Today, a highly profitable secondary line of manufacture has been established, in which high-grade facing panels are being made from sawdust.

Lesnaya promyshlennost'
18 August 1988
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