

* **High-shear processor spins wastes into plastic products**

A new mixing process by LEX Technologies of Brampton, Ontario, Canada, may open up new markets for recycled materials. Called Lexification, it turns a wide variety of post-con-



sumer plastics, glass, flyash, wood residues, aggregate, rubber, wire scrap insulation and light gauge metals into composite bricklike pavers, crates, roof and floor tiles, rubber mallets, cabinets, desk tops, an array of packaging materials and ascetically pleasing alternative wood products.

The key of the process is its intense shearing action, which converts mechanical energy into heat to melt powder, pellets or chips into a homogeneous mass for molding, extrusion or sheeting. The process is capable of processing comingled recyclable industrial and post-consumer plastic and nonplastic waste of varying sizes.

According to marketing manager Craig Hunt, the shearing action allows the process to operate at lower temperatures (between 200°F and 450°F) and offer lower energy costs than conventional plastics manufacturing processes. And by using a spike system, the process only draws enough high energy to perform the high speed mixing. No preheating is required. Process time is five to 50 seconds.

When the material being 'Lexified' hits certain predetermined characteristics, the solid materials and plastics bond together and are dumped every five to 10 seconds onto another conveyor for sheeting, molding or extrusion, says Hunt. Production rates range from 100 to 20,000 lbs. per hour while output ranges from two to 125 cubic feet per hour.

Another advantage: The system will tolerate contamination. "It can take a mixture of chopped oil bottles, oil and paper labels without fouling," says Hunt. The firm offers turnkey processing and is negotiating several joint venture partnerships in the U.S. LEX has also entered a joint venture with a Canadian auto recovery facility to Lexify auto shredder components such as seat cushions, vinyl, carpet, cardboard and other fluff. Hunt estimates a payback within 18 months in some cases.