



EPP Rapid Research

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EPP Rapid Research
Sanding Belt Recycling
Weyerhaeuser Company, WA

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Request:

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“Our Eugene Hardwoods sawmill (as well as others) generates a fair amount of industrial sander belt waste that ends up in a landfill. They would be interested in finding a supplier who might recycle sander belts (or just find ways that these could be reused by others). “

Where have you already looked? Google search, other WY facilities. Have sent a query to 3M to see if they've considered this. No success thus far.”

Key Findings:

The manufacturer of the sanding belts used by Weyerhaeuser, Saint-Gobain (Norton), has been in business for 150 years. They have investigated possibilities for recycling without success. They attempted to compost the belts and the paper composted, but the adhesives and cloth didn't breakdown. Shredding the belts tends to ruin a shredder because of the abrasives. Burning (unless you are a permitted household waste incinerator) is not recommended since the adhesives are either phenol formaldehyde or urea formaldehyde.

The best ideas about re-using sanding belts came from people from the wood industry, and are probably more applicable on a small scale (see below).

Recycling/Re-Use/Reduction ideas

From an inquiry to the WOODWEB listserv:

<http://www.woodweb.com/cgi-bin/forums/business.pl?rev=507085> (Accessed March 2, 2007)

“Put an adhesive on the back and they would make a great anti slip treatment for stairs and such”.

“I once knew a man who took all his used sandpaper and cut it into small squares. He they dumped them into a drum and bulk sanded small turned parts he produced.”

Workshop tips from the *Family Handyman*

October 2002, <http://www.rd.com/familyhandyman/content/17883/> (Accessed 2/28/07)

“Save those “used” sanding belts to make specialized sanding tools. All you need is the belt, a pair of scissors, some two-sided carpet tape and a little imagination. Here's a couple of ideas to get you started.

Stick two-sided tape and a piece of sanding belt on the outside of a hole saw to work like a drum sander. We recently made some decorative scallops on a board by drilling evenly spaced 3-in. holes with a hole saw, cutting it lengthwise to create “half holes.” We then used our hole saw drum sander to finish sand the scallops in just seconds while preserving the contours of the scallops.

Add two-sided tape to paint stir sticks and pieces of dowels or molding, then apply sanding-belt strips for all those project corners and shapes a power sander can't touch. Sanding belts are tough, unlike sandpaper, and the files and sanders you make from them can last for years.”

Best Management Practices for Extending the Life of Sander Belts

Wood Furniture Manufacturing

Pollution Prevention Opportunities Checklist

Small Business Assistance Programs in Alaska, Idaho, Oregon and Washington and funded by a grant from the U.S. Environmental Protection Agency.

<http://pinellascounty.org/Environment/pagesHTML/pollutionPrevent/p2r2PDFs/opportunityChecklists/woodFurniturManuf.pdf> (Accessed 2/28/07)

C. ASSEMBLY - MACHINING AND SANDING

____ Keep sanding belts and machine tools clean

Optimizing Motor Control in the Forestry Industry

<http://www.schneider-electric.ca/www/en/techpaper/html/ats48forestry.htm> (Accessed March 1, 2007)

Sanders

- **Extend Sanding Belt Life** – Soft start of the sander eliminates sanding belt damage cause by starting stresses.
- **Simplify Sanding Belt Tracking** – Altistart 48 Torque Control System slowly accelerates newly fitted sanding belts, preventing them ripping at start. This simplifies sanding belt replacement by eliminating the need to jog the sander.
- **Reduce Electrical Disturbances** – Altistart 48 Torque Control System minimizes motor starting current to reduce electrical disturbance.
- **Improve Plant Efficiency with Soft Braking** – Soft Braking improves plant efficiency by reducing time needed to replace sanding belts by quickly stopping the sander.

Case Studies

Colorado Department of Public Health and the Environment

Mastercraft, Aurora, CO

Case Study about wood products company targeting solid waste, specifically Sanding Belts. Mastercraft uses a washing system to extend life of belts and reduce the quantity they throw away.

<http://www.p2pays.org/ref/01/00295.htm> (Accessed 2/28/07)

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Additional Resources

To help disseminate this information and encourage EPP, PPRC will list the summarized results, including contact information, on its website. Please let us know if this is not acceptable