Wet Wipes Manufacturing: 6 Tips to Reduce Waste and Delay

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Every minute of machine downtime, each square foot of base sheet wasted, and any time runability is reduced, nonwoven wiper manufacturers can lose money. If these problems get severe enough, the business also may lose customers.

Manufacturing wet wipes doesn't need to be a complex process. But there are things that can go wrong. That's why it's important for manufacturers to reduce opportunities for waste and delay. Read on for some simple steps processors can take to manufacture wipes while avoiding problems that can lead to waste and excessive downtime, to help make the wet wipes manufacturing process more reliable and productive.

Match base sheet roll length, width and diameter to your machine set up. The base sheet is typically 60 to 65 percent or more of the total cost to manufacture a wet wipe. Converters can save time and money, as well as reduce the amount of waste sent to landfill, by optimizing the length, width and diameter of the roll and running it down to its core. Not only can a right-sized roll reduce material waste, it can also help wipe manufacturers maximize uptime because more of the roll can be used before it needs to be replaced. Plus, it helps manufacturers to better control inventory so that they can balance the amount of base sheet inventory they need to meet customers' demands without tying up working capital that could be used for other expenses.

Pay attention to base sheet quality control. While wipes manufacturers certainly have responsibility for making sure the products they manufacture are clear of contamination, they should also turn to their base sheet suppliers to help them spot any material defects or transferrable contamina-

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tion, such as microbial contaminants. If spotted early, such defects can be removed before they require rework of the finished wipe.

Stage your base sheet rolls. Roll changes take time, but if rolls are staged and ready to go, wipes manufacturers can reduce the hit on productivity. Plan to have three or four rolls ready at all times by removing their packaging wraps, opening them and allowing them to condition to avoid issues related to runability. Stage rolls in the order they are run, to limit in-run variances. For example, if you start with Roll #1/Cut A, use Roll #2/Cut A next.

Be aware of the splice. Taped roll splices can be double the thickness of the base sheet or more. Tape adhesive may become exposed, and the joint formed may vary in flexibility from the base sheet. All of these issues can cause additional downtime as the machine is rethreaded. If not done correctly, splices can also damage the folding boards or perforation section. Proper tape selection can help as can avoiding stiff or bulky base sheets.

Understand tolerance for fluctuations. Every converting process is different. Some can't afford significant variability in base sheet attributes like basis weight and tensile strength without those fluctuations negatively impacting runability. In some cases, even minor fluctuations can slow down a process or cause problems like perforation breaks. Most machines have a "sweet spot" for optimal settings, so adjusting those settings to accommodate a substandard base sheet isn't always a good option. Remember that a change in one part of the converting process can affect the rest of the downstream process.

Don't forget about packaging. Choice of base sheet can affect ability to package produced wipes, especially if the wipes are perforated, packaged in soft packs, or if they're wound wipes packaged in a canister. Rigid, tub-like packaging tends to allow for more variance in base sheets. Packaging format and materials can also add sizable cost to downstream shipping and warehousing and thus are ideal areas on which to economize.

When choosing a base sheet supplier for the next wipes product, consider one that can help identify and address the issues discussed above. The base sheet supplier should work closely with you to help optimize converting and manufacturing processes in a number of ways:

Conducting a "Waste Walk" or site analysis to identify the root causes of waste and inefficiency in operation. Dedicated suppliers can even take a stopwatch to various points in your process to benchmark speed and efficiency and then compare it with industry best practices and lean production methods.

Customizing base sheet attributes such as basis weight, tensile strength, and roll length, diameter and width, so that the base sheet is matched as best as possible to the specific converting machinery and processes as well as to the desired performance attributes of the finished wipe.

Qualifying your machines to run the supplier's base sheets and helping determine exactly what is needed to move from start-up to full production runs.

Training and practicing on roll splices so operators will know how to make good splices that won't result in extra downtime.

If a producer is experiencing waste or delay in the wet wipes converting process, they should contact their base sheet supplier and let them help reduce waste and delay so they can become leaner and more productive.

For more information contact: