



"For All Of Your Wiping Needs"

Nonwoven Textiles vs. Rental Shop Towels

Renting shop towels and having them laundered has been a common business practice going back to the 1920's. With the emergence of vastly and rapidly expanding technological innovations nonwoven textiles have become a more sensible economic, environmental, health and practical choice.

For nearly all purposes, industrial nonwoven textiles outperform laundered rental shop towels by a wide margin. For the purposes of this white paper we will examine several areas of results performed by independent parties that validate nonwoven disposables, hereafter called wipers, as the superior choice for your wiper needs. While the common perception is that shop towels are more economical or convenient, *it just is not true.*

Common Performance Misconceptions

While the common perception is that shop towels are more economical or convenient and that nonwoven disposables don't perform as well, *it just is not true.* From a practicality standpoint most businesses see that a delivery truck shows up once a week to pick up the dirty towels from the disposal bin they provided and deliver new fresh ones. Convenient, no hassle, no worries, no problems. Everything seems to be well. From a performance standpoint, people know cotton rags, they trust it, they have experienced it as an effective tool for their wiping and cleanup needs. While it is static in terms of what it can do. It absorbs pretty well and is fairly strong. Nonwoven wipers are typically not maintained by a weekly delivery driver, so most of the time you have to reorder product, place it in the work area it needs to be used in and properly dispose of it after use. In the near future you can expect that to change. As the demand for nonwovens grows as a preferred product over traditional cotton shop towels you will begin to see a shift to a delivery of maintained nonwovens inventory for customers that currently have their rental shop towels provided to them.



Nonwoven wipers are a reusable, disposable product by it's design. This means that they offer several advantages over a product that continues to degrade and lose effectiveness like a cotton shop towel. When you use a new wiper you get the same product, that performs the same way every time versus a cotton shop towel that during every wash loses it's absorbency and strength. The intelligent engineering of wipers also enables a wiper to be designed for maximum effectiveness for a specific task or variety of tasks such as high absorbency, resistance to tearing, fire retardancy, exceptionally low lint and much, much more. Cotton shop towels are very static in what they will absorb, what will break them down, what will tear them and how much they lint, so in understanding this it is clear that you are much more limited in what you can achieve with cotton shop towels.

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It's All About The Green

As business owners, decision makers and buyers we are all driven by the bottom line. But the bottom line is really about 3 things. Profit, People and Planet. These are the 3 things that makes a business successful. If you ignore any one of these 3 you are neglecting to consider all the factors that impact your business. This is one of the beautiful things about converting over to nonwoven wipers. You can make a substantial impact on all 3 areas with one simple decision.

For the purposes of this study, four test sites were selected which were manufacturing facilities and auto repair shops in Texas, Nevada, Ohio and Canada. No pricing adjustments were allowed so that results would reflect the most conservative market conditions. For a four month period in March of 2009, participants used both Cotton Rental Shop Towels as well as a top quality wiper provided for a fair analysis.(1)

Profit

Costs

When comparing costs there are 5 types of expenses to examine that are incurred while renting shop towels versus purchasing wipers that include base cost, delivery/fuel/energy surcharge, replacement charge cost, environmental charge and a potential disposal cost. Some are hidden costs that vary in fee from site to site and how they are charged but their impact on the bottom line can not be hidden.

- Base Costs

The average base cost for rental shop towels ranges from \$.05 to \$.15 while the average cost for wipers averaged about \$.15. This is usually the only number most people are shown when entering into a rental towel agreement which on its surface seems like easy math. The study confirmed that the hidden costs are what dramatically raise the bottom line costs.

- Delivery/Fuel/Energy Surcharge

This is really nothing more than a convenience charge. This charge is for when that delivery truck reliably shows up to pickup your old dirty towels and drop off your used clean towels. However with rising fuel and energy costs shop towel suppliers, like many other companies, add a surcharge rather than raise their base costs to make their service appear more cost competitive. The study found that this typically adds \$.03 to \$.05 per towel, whereas delivery costs for wipers are either already included or would account to less then \$.01 in what the distributor charges.

- Replacement Costs

This is a **big one**. Shop towels are not constructed with high levels of cotton so the typical lifespan averages 7 to 15 washes or less if they are damaged beyond usability or simply lost in the shop or plant. The customer is typically charged for up to 10% of their weekly inventory as lost, damaged or worn out. The charge for replacement in some locations exceeds \$.40 per towel.

- Environmental Surcharge

When washing your dirty shop towels that are full of oils, grease, lubricants, coolants, metals and other harmful contaminants the laundry incurs very large waste water charges as the discharge water from these washes enters the main waste water system of your local municipality. Not only is this far more environmentally damaging than incinerating wipers but they pass thru their fees averaging as much as \$.02 per towel to your cost.



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- Disposal Costs

Both wipers and rental laundered shop towels require proper disposal and the cost for doing so is the same. While waste-to-energy incineration is becoming more feasible as local governments construct more of these type of facilities, generally both wipers and shop towels are sent to landfills at a cost of \$.02 to \$.03 per wipe. It is important to note that according to the EPA, wipers contribute less solid waste than shop towels.

Results

While variations in charges from location to location occurred the results are clear. At the low end, the costs of using a used, less effective laundered shop towel are about the same as using a fresh, far more effective nonwoven wiper. On the high end the data shows costs of using a used, less effective shop towel to be *more than double* that of fresh, more effective nonwoven wipers. The results show that the perceived savings of using rental laundered shop towels quickly disappears as these hidden charges are taken into account.

ITEM	NONWOVEN WIPERS	LAUNDERED RENTAL SHOP TOWELS
Base Cost	Up to \$.15	\$.05 Up To \$.15
Delivery/Fuel/Energy Surcharge	-	\$0.02
Replacement Cost	-	Up To \$.05
Environmental Surcharge	-	\$.40 Or More Per Towel
Disposal Cost	Approx. \$.02 Per Wiper	Approx. \$.02 Per Towel

Even More Costs

- Inventory

There are also instances where some shop towel companies charge per towel costs based on the total inventory in their cycle and not just the towels that were in the customers shop. In other words, the customer had 500 towels in their shop but they were being charged to rent an additional 500 towels that were not on their site. So the owner thinks he has 1,000 towels to use at any given time for his company, but he really only has 500 towels for his employees to use. WOW, how would you like to pay for a full hamburger, but only be able to eat half of it.

- Tracking

Under environmental guidelines, companies that generate hazardous wastes are supposed to follow strict bookkeeping requirements. It is a very complicated process known as "Cradle To Grave" tracking. Every step in the use and disposal process must be precisely documented. Who do you think ends up paying for it. You of course, they simply pass it thru to your bottom line.

- Process Interference

A more subtle expense but real impact that occurs happens when you are using dirty, contaminated shop towels. Even after washing, levels of contamination from previous use are left behind. A 2003 study(2) by Beyer, et al., revealed that all towels tested after laundering contained oil, grease and many contained particles of iron, lead, copper, nickel and other metals. Now what happens if you use one of these towels to clean a surface that has been painted, stained or moulded. Even trace amounts of these contaminants can scratch delicate surfaces ruining equipment and diminishing finished product quality.



People

Worker Health & Safety

No matter what industry you are in, it's the people that drive your business to success. Without quality people your business will always struggle. When it comes to your employees health and well being, the difference between wipers and laundered rental shop towels can not be understated. Your employees use these wipers to clean their hands and wipe sweat from their face. They are trusting you when you tell them it is safe to use the products you are providing for them to do so. When they use a fresh wiper, you can be sure you are holding up your end of your responsibility. Not necessarily so when they use a laundered rental shop towel. The Beyer study previously mentioned examined how residual metals can be transferred from shop towel to hand to mouth. The results showed serious skin rashes and irritations can occur even over short exposure times as well as long term exposure leading to serious health conditions. When you arm your employees with laundered rental shop towels, did you ever consider you could be unknowingly exposing them to unknown contaminants that pose serious long term health problems for them? This is a very serious problem that many industries have yet to realize.

Planet

Have you ever stopped to think what happens after waste and contaminants are soaked up by a towel or wiper? In the case of wipers, they typically head to a waste to energy facility or a landfill for proper disposal. Laundered rental shop towels go into washing machines where the waste water is discharged directly into local municipal water systems. As a general rule, this discharge is not sufficiently remediated and these substances end up being release into the biosphere, where all of us, our children and our children for generations to come have to endure the consequences and pay for the impact to our societies.

Conclusion

In evaluating all 3 main areas of impact it is clear that nonwoven industrial wipers offer many advantages over laundered rental shop towels. They perform better because they are intelligently designed for specific tasks. They cost less to use after a full financial analysis. They are safer for your employees health and well being. They have less of a negative impact on the environment. Simply stated, wipers are a better choice for your wiping needs.

Bibliography

- (1) Robey et al., Georgia State University, 2006
- (2) Beyer, et al., International Journal of Nonwovens, V12, No. 4, 2003

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