



# Texas Department of Transportation's (TxDOT) Experience Using Remanufactured Toner Cartridges

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## History

- ▶ Texas Department of Transportation (TxDOT)
  - ▶ 15,000 employees statewide
  - ▶ 300 facilities in 254 counties
- ▶ In 1994, TxDOT established policy to buy recycled, remanufactured, and environmentally sensitive products.
- ▶ Designated Recycling Staff to administer TxDOT's Recycling and Recycled Products Program.

## Specification Background

- ▶ Establish a benchmark for quality remanufactured laser printer toner cartridges.
- ▶ Develop guidelines for manufacturing, employee technical certification training, and packaging guidelines for remanufactured laser printer toner cartridges with local, state, and national industry laser printer toner cartridge experts.
- ▶ Develop service details and vendor responsibilities for printer & cartridge issues.

## Key Features

- ▶ Requires cartridges to meet industry standards adopted by the Standardized Test Methods Committee (STMC).
- ▶ Requires vendor to be STMC certified and employ trained STMC technicians.
- ▶ Defines minimum remanufacturing cartridge requirements.
- ▶ Requires 3<sup>rd</sup> party quality testing per ASTM, ANSI & ISTA standards.

## Key Features

- ▶ Imaging Products Laboratory
  - ▶ Rochester Institute of Technology  
[www.reman.rit.edu](http://www.reman.rit.edu)
- ▶ Inspect company manufacturing facilities.
- ▶ Establish one-year cartridge warranty.
- ▶ Require vendor to repair printers damaged by defective cartridges by providing factory-trained service technician.
- ▶ Benefit - Average 50% in savings.

## Cartridge Issues

- ▶ OEM manufacturers have placed smart chips on new cartridge models to make it harder to remanufacture.
  - ▶ Warehousing – climate control.
  - ▶ Cartridge availability.
  - ▶ Cartridge performance.
  - ▶ Contract documentation.
  - ▶ Recycling empty cartridges.

## What We Have Learned

- ▶ Strong cartridge packaging to prevent damage during shipping.
- ▶ Proper company box labeling.
- ▶ Prevent overstocking by on-time delivery.
- ▶ Large print jobs – producing more copies than printer can handle.
- ▶ Printer warranty issues.
- ▶ Establish good communication.

## Vendor Reaction

- ▶ Contracts and specifications create an equal “bidding” process.
- ▶ Contracts create a professional long-term relationship and are easier to handle.
- ▶ Providing technical service gives more value to clients.
- ▶ Clear communication points are created between clients and vendors.
- ▶ Satisfied customers because vendor will handle cartridge problems.



## Why Continue?

- ▶ TxDOT strives to be a leader in all phases of reducing waste, reusing products and roadway materials, and recycling end-of-life products.
- ▶ Bottom Line:
  - ▶ Remanufactured toner cartridges work
  - ▶ Competitive pricing
  - ▶ Saves money
  - ▶ Saves resources & the environment
  - ▶ Offers same printing reliability as OEM cartridges



***TxDOT***



***RECYCLES***

[www.txdot.gov/recycling](http://www.txdot.gov/recycling)





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