



*Reusable Textiles —
The Responsible Choice,
Because the Future is NOT Disposable*

The American Reusable Textile Association • PO Box 1142 • Mission, KS 66222 • www.arta1.com

FOR IMMEDIATE RELEASE

**LIFE CYCLE ANALYSIS ON CLEANROOM COVERALLS
ACCEPTED FOR PUBLICATION IN PDA JOURNAL**

LCA research finds that reusable cleanroom coveralls provide a significant improvement in energy, environmental footprint, water, and energy-associated emissions. In addition, reusable coveralls offer a 95% reduction in waste stream.

MISSION, KS, April 9, 2018 — The American Reusable Textile Association (ARTA) has announced that its life cycle research on cleanroom coveralls has been accepted for publication in the peer-reviewed *PDA Journal of Pharmaceutical Science and Technology*. The *PDA Journal* is published by the Parenteral Drug Association. The study was conducted by Environmental Clarity, Inc., and compared the life cycle of reusable versus disposable cleanroom coveralls. This is the first life cycle that includes gamma sterilization as used in the cleanroom coverall sector.

"The results of the cleanroom coverall LCA support the conclusions from six other reusable/disposable studies that showed reusables provide a significant improvement in energy, environmental footprint, water, and energy-associated emissions," said Michael Overcash, PhD, of Environmental Clarity.

"This study confirms that reusable cleanroom coveralls are the best choice for cleanroom operations," said Jerry Martin of Prudential Cleanroom Services. "Not only do reusable coveralls offer substantial savings for cleanroom operators, they are more comfortable for workers and are THE sustainable option." Martin is chair of the ARTA Cleanroom LCA Committee.

About the Study

Disposable and reusable cleanroom coveralls were studied from their inception as raw materials in the earth to manufacture of the coverall product, to use/reuse, then to final end-of-life disposition. The scope and the results emphasize transparent, science-based life cycle analysis. An abstract on the study is available at www.ARTA1.com.

The study found that choosing reusable cleanroom coveralls instead of disposable alternatives (two types studied) has a significant positive effect on the environment. Reusable cleanroom coveralls provide:

- 56% lower natural resource energy consumption,
- 57% lower carbon dioxide (CO₂) equivalent emissions,
- 77% lower total water consumed (blue water), and
- 95% reduction in solid waste stream at the cleanroom facility (not including reuse after 50 cycles).

— more —



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Two representative market leading disposable coveralls— a flash spunbonded high-density polyethylene (HDPE) coverall and a spunbond-meltblown-spunbond polypropylene (PP) coverall – were compared with a representative market-leading reusable polyethylene terephthalate (PET) coverall. The HDPE coverall was found to be 43% lower in natural resource energy consumption and 41% lower in CO2 equivalent emissions than the PP coverall. The water consumption for the HDPE coverall was 12% lower than the PP coverall.

ARTA Cleanroom Committee

The study was organized by ARTA's Cleanroom Committee, which contracted with the independent research firm Environmental Clarity. The committee members are:

- **Mike Rataj** of Aramark, Cleanroom Division,
- **Dianne Knitter** of Prudential Overall Supply, Cleanroom Division,
- **Jerry Martin** of Prudential Overall Supply, Cleanroom Division,
- **Myles Reukema** of Prudential Overall Supply, Cleanroom Division
- **Steve Glosson** of Precision Fabrics Group,
- **Dennis Moore** of ITG/Burlington,
- **Greg Winn** of White Knight,
- **Doby Byers** of Hi-Tech Garments, and
- **Brendan O'Neill** of London Hospital Services/ARTA President.

The research team included **Overcash, Eric Vozzola** and **Evan Griffing**. ARTA was founded in 1982 with the mission to create greater awareness and appreciation for reusable textiles. Members represent all facets of the textile services industry — from manufacturers, suppliers, and distributors to profit and not-for-profit laundry operators, as well as allied associations. For more information: www.ARTA1.com.

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