

# VR

## PROVIDES ALTERNATIVE

# Vinyl<sup>to</sup>

Several Years ago, PolyConversions, Inc., Rantoul, Ill., realized there was a need for an alternative to the vinyl apparel traditionally worn in food-processing plants. One of the problems with vinyl, which has been around for more than 40 years, said Sales Manager Scott Carlson, is that it can dislodge flecks of material that could end up in the food chain. That's because the vinyl film used for protective apparel is softened with plasticizers, Carlson said. When the film comes in contact with animal fats, it causes the plasticizers to leech, resulting in brittleness and flecking of the material. In addition, vinyl is difficult to clean, becomes brittle in cold temperatures and often has a short lifespan in plant environments.

In response, the company began working with a chemist on development of an alternative material, and in March it introduced a design made with its new proprietary film- the VR "Fleckless" Apron. VR combines high-tech plastic resins with modern extrusion techniques to produce a longer-wearing, lighter-weight, more cleanable material. VR's lack of additives, which can leach out of products, its fleckless characteristics, and its softer, suppler, lighter-weight characteristics make it particularly well-suited for

"Fleckless" apron combines high-tech plastic resins with modern extrusion techniques to produce longer wearing, more cleanable material.



the food industry, Carlson said. But one of its greatest benefits is its cleanability, which enables ongoing use and greater durability in the plant. "VR will last four to six times longer because of the physical properties of the film, resulting in cost-effectiveness for the user," Carlson said. And these same properties prevent the adherence of bacteria.

Like any material used in a food plant, however, VR apparel needs regular cleaning and, as proven by independent tests conducted by the Meat Science Laboratory and the Department of Food Science and Human Nutrition, University of Illinois at Champaign-Urbana, VR's cleanability surpasses that of vinyl. The objective of the VR comparison test was to "determine differences in the relative effectiveness of cleaning and disinfecting treatments between vinyl and VR materials." The tests closely simulated the conditions found on the meat processing floor, with a bacterium inoculum applied to 3-inch by 3-inch swatches from the new vinyl and VR apron material, with five trial swatches of each being tested. The swatches were allowed to dry for eight hours at 40°C, then placed into treatment solutions for 10 minutes.

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The results? According to the study summary, "Overall, the VR material demonstrated a higher degree of 'clean-ability' as compared to vinyl."

The VR material is also environmentally friendly, Carlson said. Biodegradable and nontoxic, releasing only carbon dioxide and water when incinerated, the material can be put into landfills, burned or recycled.

**ADDITIONAL OFFERINGS.** PolyConversions has produced aprons, gowns, sleeves and shoe and boot covers in the VR material, all of which are available in blue, white, yellow, and clear enabling garments to be color coded to plant areas, to help prevent cross-contamination issues.

In its continuing efforts to focus on HACCP sanitation requirements minimizing the potential for contamination and cross-contamination during processing, PolyConversions has introduced a VR wipe that reduces

the accumulation of the "bio-load" on impervious apparel and work surfaces when used in a continuous cleaning program. The wipe fulfills an industry need, Carlson said, in which there was a "lack of available cleaning procedures for apparel within the food processing market." The disposable wipes come in a sealable bag within a bucket and contain a surfactant for cutting grease, oils and fats; disinfect the material; and meet FDA requirements, he explained. The wipes can be used on VR or vinyl materials, and are a good supplement to a plant's regular cleaning program.

PolyConversions, Inc., located in Rantoul, Ill., manufactures personal protective apparel such as gowns, sleeves, gloves, aprons, shoe covers, boots for the food processing, clean room and critical environment, and health care industry. Visit [www.polycousa.com](http://www.polycousa.com) or call 1-888-893-3330 for more information. **QA**

**VR**  
Protective Wear

PolyConversions, Inc. ("PolyCo") is a U.S. manufacturer of personal protective wear made of recyclable polyolefin materials. PolyCo actively promotes and assumes the responsibility of natural resource conservation and the elimination or minimization of adverse environmental impacts in its manufacturing activities and projects.

*PolyCo Advances Environmental Sustainability*



**Manufacturing**

- Minimizes use of non-renewable resources
- Recycles all material scrap & spent supplies
- Reduces energy use through planning & conservation
- Promotes environmental awareness among employees
- Designs low-impact manufacturing processes
- Engineers products to minimize waste & energy
- Prohibits use of hazardous materials in all processes



**Products**

PolyCo manufactures protective wear designed with non-hazardous materials that can be reused, recycled and replace traditional protective wear made of PVC (vinyl). PolyCo complies with all aspects of environmental law that applies to its plant operations and constantly tracks and monitors all applicable federal, state and local governmental regulations.

**PolyCo**  
innovative protective solutions

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**Recycling**

*Another Innovative PolyCo Solution*

PolyCo derives its materials from polyolefin plastomer resins that incorporate a new metallocene catalyst technology. PolyCo VR products exhibit very attractive recycling properties and benefits. Contact PolyCo for more information on how to develop a recycling program.

