PROTECTIVE INDUSTRIAL PRODUCTS

# THE PIP® GREEN PLAN

www.pipusa.com

PROTECTIVE INDUSTRIAL PRODUCTS

# THE PIP® COMMITMENT TO SUSTAINABILITY

www.pipglobal.com

# HELPING TO PROTECT LIFE, EARTH AND COMMUNITY.

As a global provider of hand protection and PPE, we are committed to continually identifying opportunities to minimize our environmental footprint to support a more sustainable, safer future. We are focused on leading the way along with our industrial distributors and retailer partners by offering products and solutions that minimize our impact while maximizing  protection against occupational hazards. This extends to multiple aspects of our busines  including Manufacturing Processes, Sustainability-Driven Programs, Recycled Products, Social Sustainability and Future Initiatives.

## PIP® has joined Sedex

SUPPLIER ETHICAL DATA EXCHANGE

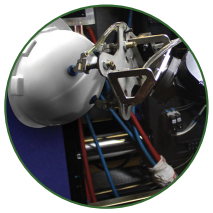
Sedex is a member platform that measures and houses reporting, company information and Audit reports. Sedex assists PIP® improve our supply chain ethics and value proposition through diligence and reportable information.

We are currently working with our valued supplier partners to activate Sedex membership. PIP® are also in the process of transitioning our audit practices to SMETA (Sedex Members Ethical Trade Audits)  4 Pillar audits, Labor, Health and Safety, Environment, and Business Ethics. This is the most comprehensive social auditing methodology currently in practice. PIP® is committed to Improving the livelihood and working conditions of everyone involved in making our products.

Sedex


PROCESS

# PIP® Manufacturing Processes



PIP® has a heightened focus on developing products in a sustainable way while remaining compliant with globally recognized industry standards. The following are a few examples of how PIP® excels at reusing and recycling byproducts of the manufacturing process.

PIP® collaborates with companies who transform excess Aramid yarns that are used when making Kut Gard® and Claw Cover®gloves and sleeves into materials that can be repurposed for additional use. Aramid fibers are an excellent alternative to asbestos as the reinforcement component in automobile brake pads.

Sprue leftover plastic resulting from the molding process of our EZ-Twist™ ear plugs is reused in a 20% mix ratio when molding new plastic stems.

We work with metal processors to recycle the highly coveted high-grade stainless steel scrap that emanates from the manufacturing of metal mesh gloves.

PROGRAMS

# Sustainability Driven Programs

## Recycling

Each PIP® facility ranging from manufacturing plants to warehouses and offices is engaged in a variety of initiatives to reinforce our commitment to operating in a sustainable, environmentally-friendly manner. PIP® also is among the first to introduce a true PPE recycling program for customers who want to go the extra mile. Learn more about the PIP® 3R™ Sustainability Program here.

## Paperless Office Policy

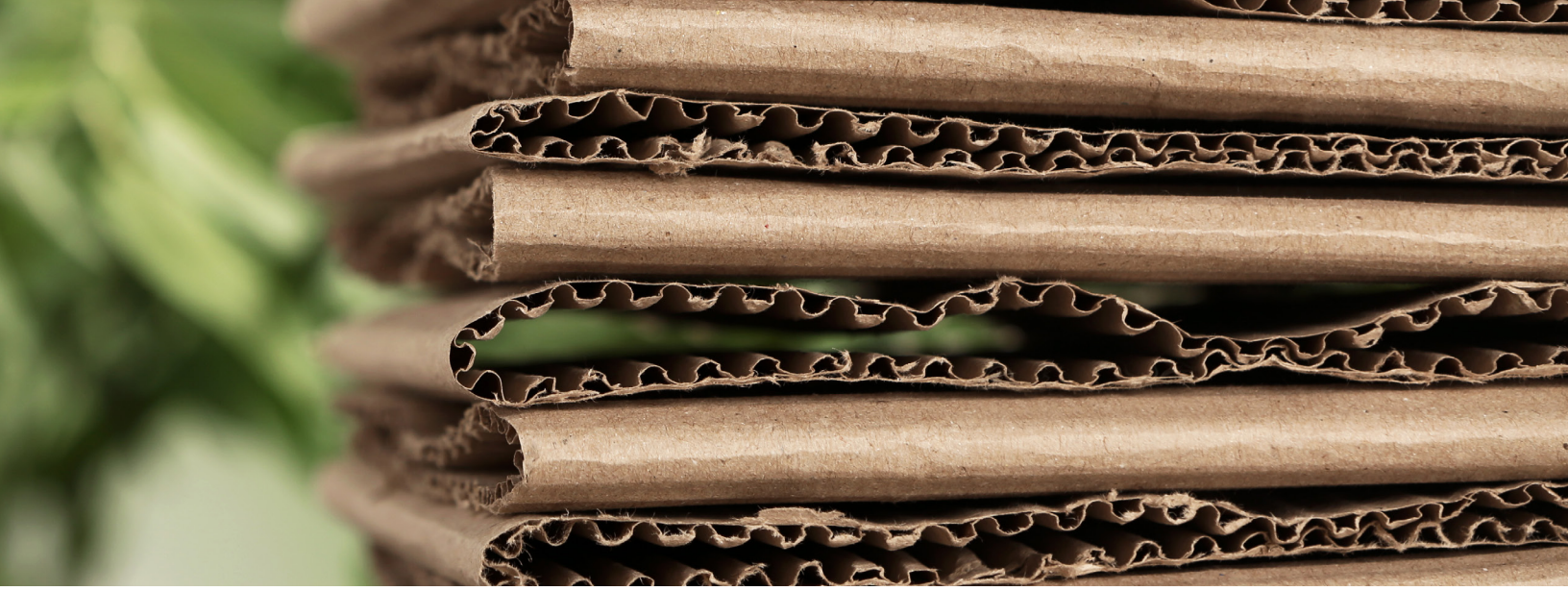
PIP® adopted a paperless office policy nearly a decade ago. This has led to a reduction in the amount of paper used in order treatment, invoicing and payment by more than 80% thanks to an investment in software that links to customers' systems for a paperless interchange. All PIP® invoices are electronic and 90% of checks received or paid are electronic. Today, even our recycling bins are nearly empty due to the successful implementation efforts of this policy.

## Reallocating

Across PIP® facilities, miscellaneous scrap metal, refundable bottles and cans are collected so the proceeds can be applied toward employee team building activities including community fundraising runs, summer outings and participation at philanthropic events.

## Flexible Work Schedules

In response primarily to the pandemic, PIP® made significant investments to upgrade employees' computer hardware to allow for greater portability, functionality and flexibility so that work-from-home is possible when just two years prior, it was nearly impossible. The use of carpooling and public transportation is also strongly encouraged for days spent in the office.



## Packaging

All facilities have active recycling programs for high-volume packaging materials such as cardboard, paper and plastic wrap. Ongoing efforts are also underway to replace plastic film bags with biodegradable films that are more easily broken down to address the challenges related to the increased need for hygienic individual packaging in today's post pandemic reality.

## Logistics

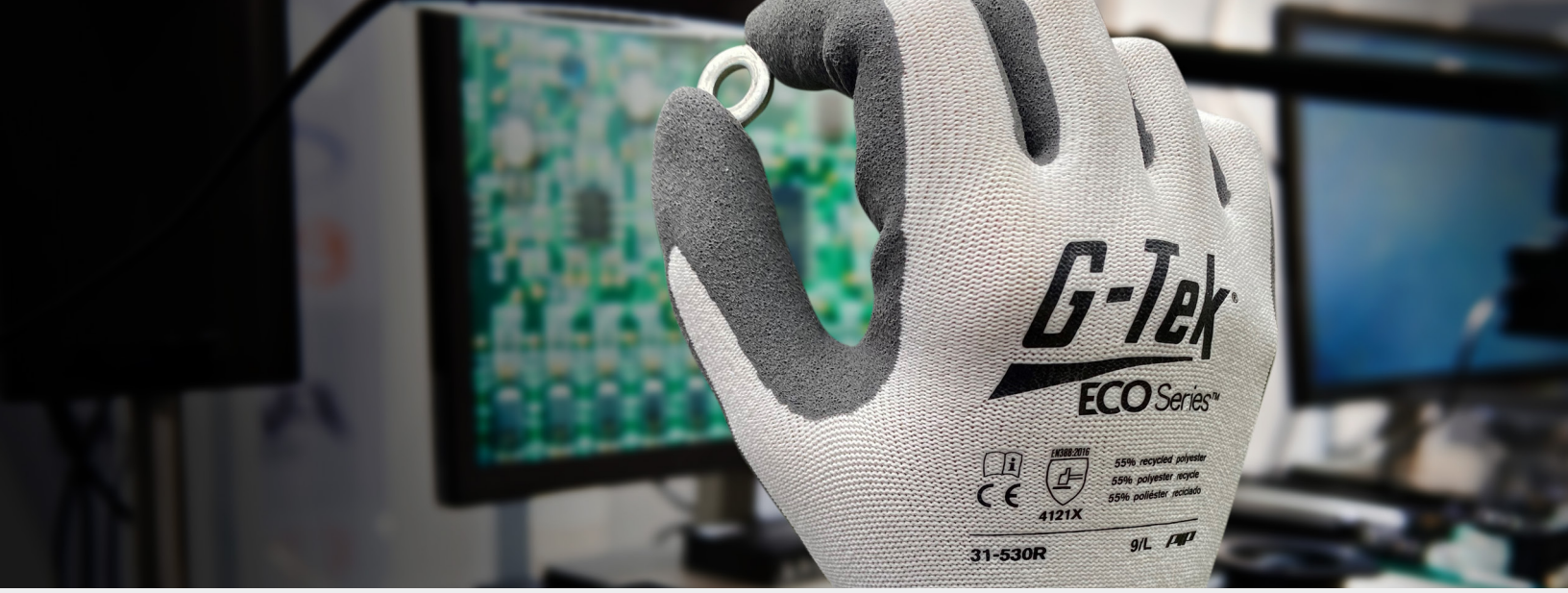
Our logistics teams have worked diligently with both PIP's Customer Service team and our customers to reduce multiple releases on single orders. They also are hyper-focused on optimizing available space on shipping containers to prevent having even a square inch of space left unused. These economic-related initiatives can significantly contribute to reducing the company's carbon footprint.

## Repurposing

Our North American manufacturing facilities recycle unused materials and repurpose them for use in other PPE components. With HDPE plastic, we regrind the excess to produce ear muff caps, bump cap inserts and headgear brackets.

## In-Person Events & Meetings

Our Sales team has adapted to changing expectations related to face-to-face customer meetings, embracing video conferences and demos with multiple stakeholders. These adaptations have resulted in a reduction of carbon emissions due to decreased travel as well as printed materials – which has reduced our use of paper materials by nearly 80%.




RECYCLE

# Recycled Into New Products

More and more gloves and hi-vis garments are using recycled polyester fibers. By working with progressive fiber manufacturers, such as DSM Dyneema®, we've introduced cut resistant gloves using yarns from the world's first bio-based HMPE fiber technology.

PIP® also pioneered the use of recycled P.E.T. water bottles – shredded and extruded to make fibers and yarns for our G-tek® ECOSeries™ gloves – then stepped up the use of these recycled yarns with some of the newest gloves containing up to 70% of recycled content.

PIP® is proud to work with longstanding partners – which include raw material suppliers and factories – that help us develop products that maximize recyclability and reduce our carbon footprint. We work with advanced factories that make use of closed-loop systems and on-site water treatment to help ensure eco-compliance and good manufacturing practices.

PIP's recent acquisition of Uniform Technology, which specializes in launderable protective garments used in cleanroom manufacturing plants, laboratories and paint rooms, markets their products as high-performing sustainable solutions with an up to 10-to-1 use ratio when compared to single-use or disposable spun-bonded polyester.

SOCIAL

# Social Sustainability

PIP® has always believed in giving back to its community. This includes supporting a variety of philanthropic causes including the National Multiple Sclerosis Society, organizations with a mission of combating cancer as well as annual participation in the Salvation Army's Angel Tree program which provides new clothing and toys to more than one million children and families in need each year.

In addition to strongly believing in giving back to its community, PIP® also is passionate about giving back to its employees and supporting their overall wellness. This includes covering employee registration fees for local charitable races whose proceeds go to underwriting a variety of initiatives including college scholarships, grants and programs that encourage grade school children to run for exercise and fun. Onsite flu vaccination clinics are also held annually to promote overall employee health and wellness.

# Bisley Workwear

PART OF THE PIP® GLOBAL FAMILY

PIP® has acquired a world leader in work apparel- Bisley Workwear. Bisley Workwear has been a strong part of the Australian clothing industry since the 1950's. Bisley offers a comprehensive range of Workwear, Safety wear and Protective wear for both men and women. Bisley is a market leader in specialist branded Workwear apparel.

Bisley's mission to become the most responsible workwear brand, Bisley Workwear's sustainability program, Bisley.POSITIVE, has been carefully designed to instill purpose for positive transformation across the organization, and influence the wider industry. Bisley's environmental, social and governance (ESG) strategy is categorized within four key impact pillars: People, Planet, Product, and Prosperity, and provides a clear framework for decision making that aligns with global best practice.

Bisley partners with Intertek to audit our factories annually via SMETA 4 Pillar audits, the most comprehensive auditing practice available. SMETA (Sedex Members Ethical Trade Audits) 4 Pillar audits, Labor, Health and Safety, Environment, and Business Ethics. Bisley is committed to improving the livelihood and working conditions of everyone involved in their value chain. Bisley is ISO9001 certified company.

# Bisley.POSITIVE

## Bisley's Sustainability Vision and Mission Statement

Our vision is to become the most responsible workwear brand.

The Bisley.POSITIVE commitment touches on the positive steps that we can take as a company to honour the key pillars of our business: **people, planet, product and prosperity.**

We are on a mission to become leaders, fulfilling our responsibility to positively transform our industry, and get the job done, so you can do yours.


Higg | Trusted Sustainability Data

MEMBER TextileExchange Creating Material Change www.TextileExchange.org

bcsd australia

go1

intertek Total Quality. Assured.

# FUTURE INITIATIVES

## PIP® will continue to strive to utilize resources and make investments in ways that further our commitment to sustainability.

While our work will never be done with this ongoing initiative, a selection of future plans that are in place relate to:

ENERGY

MATERIALS

REPURPOSE

INNOVATE

## Energy

Implementing a new program related to converting all overhead lights used throughout our facilities to LEDs with a target completion within the next year. This includes exterior parking lot lights as well as outside building lights. Another element of this program is incorporating programable timers to reduce energy consumption.

## Materials

Our new state-of-the-art warehouse in Olive Branch, MS is a LEEDS building that's built to operate with the latest in sustainable materials and energy processes.

## Repurpose

Focusing efforts on converting some of the world's largest food processing plants to our proprietary extended-use disposable gloves, which to date has been shown to eliminate up to 30% of waste when compared to single-use disposable gloves.

## Innovate

Developing products that are a more sustainable, environmentally friendly solution to traditional approaches – such as reusable work gloves with enhanced barrier protection to replace the use of disposable gloves in industrial settings – that help reduce unrecyclable waste.

**PIP update on recent H.R. 1155 Act of 2021**

*Protective Industrial Products, Inc. (PIP®), a global leader in hand protection and PPE, always has and continues to advocate for the fair treatment of all workers worldwide. In December 2021, the United States government signed into law a new act restricting the importation of goods made with forced labor under H. R. 1155 Act of 2021. To ensure compliance, PIP® performed an immediate audit of all current suppliers and can confirm that none are located or have operations within the targeted area. Even prior to the enactment of H.R. 1155, PIP® has always firmly enforced Section 307 of the Tariff Act of 1930 which prohibits importing any product that was mined, produced, or manufactured wholly or in part by forced labor.*

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9/2022

PROTECTIVE INDUSTRIAL PRODUCTS

# 3R™ SUSTAINABILITY PROGRAM

**REDUCE - REUSE - RECYCLE**

www.pipusa.com

3R™ SUSTAINABILITY PROGRAM

# 3R™ SUSTAINABILITY PROGRAM

Reducing the volume of solid waste we produce is by far the most effective way to reduce the flow of garbage into landfills. We have to think about how we can **REDUCE, REUSE** and **RECYCLE** PPE. This includes reducing packaging wherever possible. This is why we're calling this the PIP® 3R™ Sustainability Program.


## PIP® LEADS THE WAY

Not all PPE can be Reduced, Reused or Recycled the same way. But by working with PIP® and its partners, we can be sure to find the optimal solution.

**PIP® 3R™ SUSTAINABILITY PROGRAM KEY PLAYERS**

- SUPPLIERS
- DISTRIBUTORS
- PPE USERS

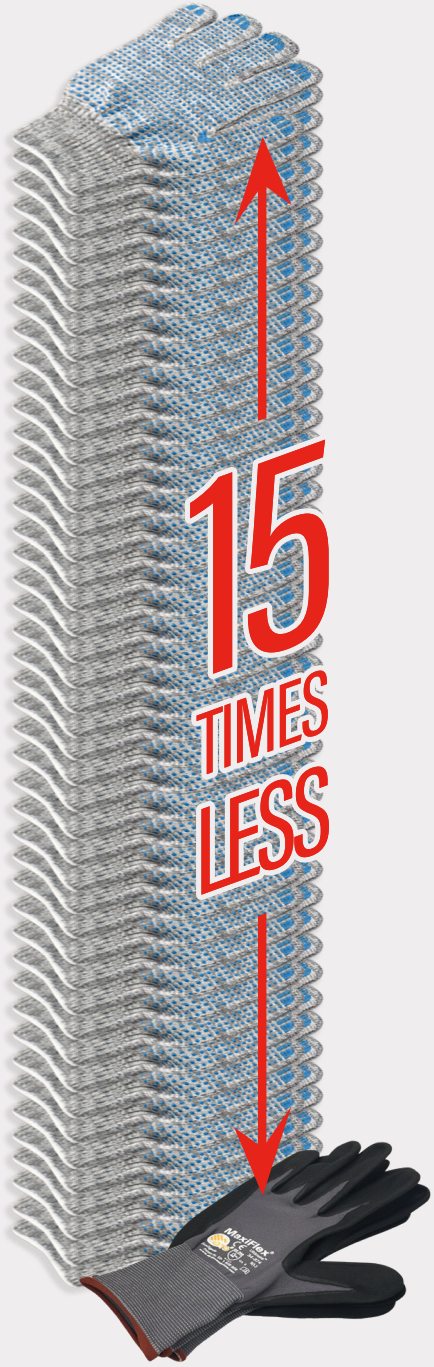
# REDUCE

## THE EASIEST WAY TO REDUCE IS TO OPT FOR PRODUCTS THAT ARE MORE DURABLE AND LAST LONGER.

In a recent PIP® use case, an American-based company known as one of the world's largest metal producers with more than $5 billion in annual sales switched from cotton canvas gloves to more durable, longer-lasting coated seamless knit gloves.

### THE RESULTS SPEAK FOR THEMSELVES

| | COTTON CANVAS | COATED SEAMLESS KNIT | SAVINGS |
|---|---|---|---|
| ANNUAL PRODUCT USAGE | 434,700 pairs | 28,278 pairs<br>*Each glove lasted 15 times longer* | **406,422 Fewer pairs**<br>*Less in landfills* |
| ANNUAL PRODUCT SPENDING | Over $260,000 | $100,000<br>*Less gloves purchased* | **$160,000**<br>*Saved cost* |
| ON-HAND INVENTORY UNITS | 16,720 pairs<br>*over 2 pallets* | 1,088 pairs<br>*7-8 cases* | **15,632 Fewer pairs**<br>*Less inventory on-hand* |
| DUMPSTER DISPOSAL FREQUENCY<br>*20 yard dumpster* | 5 disposals/year | 0.6 disposals/ year | **Over 4 disposals/year**<br>*Save $4,000/year* |



# REUSE

## THE SIMPLEST WAY TO REUSE IS TO LAUNDER.

We understand that laundering may not be for everyone. It requires commitment and a process to ensure that gloves are sorted, laundered and resorted efficiently. PIP® Regional Sales Managers can work with you to develop optimal procedures to ensure gloves are reused effectively.

### FACTORS TO CONSIDER:

**1. IN-HOUSE vs. LAUNDERING SERVICE**

Space considerations are important not only for equipment but for collecting, sorting, cleaning and redistributing the gloves. Industrial laundry equipment is more heavy-duty and usually requires special plumbing and electrical. Other factors to consider are the contribution to effluent water and extra staff that may be required for a complete laundering operation.

**2. QUALITY vs. COST**

Reducing the cost of use and cost of product at the same time may be challenging. Consider this when purchasing less expensive gloves made from blended yarns that contain glass or wire cores. They are inherently more susceptible to breakage during laundering and can result in skin irritation for wearers.

## GLOVE LAUNDERING INSTRUCTIONS

**Dyneema®** can be washed and even bleached for food applications without affecting the specific properties of Dyneema®. However, Dyneema® cannot withstand temperatures—wet or dry—over 291°F/144°C. Standard detergents, ammonium, sodium hydroxides and hydrochloric acid are not known to affect the performance of the Dyneema® fibers. This enables you to wash and re-use the gloves many times over.

DuPont™ Kevlar®

**Kevlar®** remains very stable despite repeated laundering. Kevlar® can be washed over and over with no effect on shrinkage, weight loss or changes in tensile strength. Kevlar® is resistant to many chemicals and solvents, with the exception of strong acids, bases oxidizers and bleach.

**FOR DETAILED INFORMATION ON LAUNDERING**

**Go to www.pipusa.com**

# RECYCLE

## PIP® IS AMONG THE FIRST TO INTRODUCE A TRUE RECYCLING PROGRAM FOR CUSTOMERS WHO WANT TO GO THE EXTRA MILE IN ENSURING THAT CONSUMED PPE IS RECYCLED INSTEAD OF FILLING UP MUNICIPAL DUMPS.

**HOW DOES IT WORK?** Contact your PIP® Sales Representative or download our TerraCycle® brochure. By working in partnership with recycling specialist, TerraCycle®, we've developed a turn-key approach to PPE recuperation by making boxes available to you for plant or site employees to fill with used PPE. TerraCycle® manages the whole process from pickup to the delivery of a new box. Boxes are purchased by participating PIP® distributors.



## Easypak recycling boxes

**510-3230**

## IN COLLABORATION WITH TERRACYCLE®

TerraCycle® is Eliminating the Idea of Waste® by recycling what seems "non-recyclable." Whether it's ear plugs, gloves or safety eyewear from a manufacturing facility, TerraCycle® can collect and recycle almost any form of waste. PIP's partnership with TerraCycle®, in conjunction with partnering with distributors and end-users, can help divert millions of pounds in waste from landfills and incinerators each month.

| STYLE NUMBER | DESCRIPTION | WHAT CAN YOU RECYCLE |
|---|---|---|
| **510-3100** | Disposable Gloves - Zero Waste Box™ | Nitrile Rubber Gloves \| Latex Rubber Gloves \| PVC Gloves Polyethylene Gloves \| Vinyl Gloves |
| **510-3165** | Ear Plugs - Zero Waste Box™ | Ear Plugs Made Of PU \| Ear Plugs Made of Silicone Ear Plugs Made of Foamed PVC \| Ear Plugs Made of Latex Rubber |
| **510-3210** | Safety Equipment and Protective Gear - Zero Waste Box™ | Beard nets \| Disposable (latex, nitrile, and vinyl) gloves \| Ear plugs Non-woven disposable garments \| Non-woven disposable masks Non-woven hair nets \| Safety glasses and googles |
| **510-3230** | Seamless Knit Gloves - Zero Waste Box™* | Seamless Knit Uncoated Gloves \| Seamless Knit Coated Gloves |

**Estimated - Each box holds about 40 lbs of waste**
** Cannot contain metal or steel*


**EAR PLUGS AND DISPOSABLE GLOVES** are mechanically and/or manually separated into the various polymers that make them up. The separated plastics then undergo extrusion and pelletization to be molded into new recycled plastic products.

**EYEWEAR** is mechanically and/or manually separated into metals, fibers and plastics. Metals are smelted so they may be recycled. Plastics undergo extrusion and pelletization to be molded into new recycled plastic products.

**FABRIC ON COATED GLOVES** is cut away and recycled, whereas the coated fabric that is unable to be separated from the nitrile or rubber, is cryogenically ground up. The resulting material is used as filler for auto plastics and certain lumber applications.


REDUCE
REUSE
RECYCLE
3R
SUSTAINABILITY
PROGRAM

BLOG

# Sustainability:
## NOT A One-Word Solution

by Anthony Di Giovanni, *Vice President of Global Marketing*

Sustainable, eco-friendly, biodegradable... We can go on and on. Every day, we are bombarded with product alternatives that claim to be better for the environment – almost to the point that it's become the norm. No doubt that these efforts are commendable, however, it's important to acknowledge that there are no "one-word" solutions to the environmental issues we are all facing globally. History has taught us to expect that crises are often the mother of many inventions given the pivotal role technology plays. But for now, we need a more pragmatic and transparent approach.

Before the pandemic, one could argue that PPE was distantly associated with waste and pollution. However, recent images and even our own personal experiences of seeing used disposable masks and gloves discarded all over streets and job sites have tremendously elevated awareness and concern related to PPE waste.

The fact is that most PPE is derived from plastic. Even fabrics used to make protective garments are often made from synthetic polymer fibers. Fortunately, many of these fabrics are usually made with a blend of recycled fibers which is a big step in the right direction. But with eyewear, gloves and even hard hats, it's not so easy. Eyewear and hard hats are required to sustain impacts without cracking. **And since the use of recycled plastics may compromise performance, we as an industry, cannot take any chances with recycled materials.**

There is no "one-size-fits-all" or "one-word" solution to the environmental issue we are all facing globally. For now, we need a pragmatic and transparent approach.

Gloves, by far, are the most complex items when it comes to the sustainability factor. While PIP® leads the way in the use of recycled materials in glove liners, such as the G-Tek® ECOSeries™, discarding a coated seamless knit glove in a sustainable way is difficult and expensive. This is due to the fact that the palm coating and knit liner are intimately bonded together to the point where they cannot be peeled apart. This means that the coating portion would need to be cut out and separated from the knitted liner part to make the glove recyclable. PIP's West County Gardener division recognized this difficulty many years ago, and this led them to pioneer a front-end approach with the use of P.E.T. or polyethylene-based-fibers that were derived from discarded water bottles into their gloves' liners.

Brake pad containing aramid as a filler

When dealing with hard hats, eyewear and face shields, they can easily be recycled by regrinding into other products, but not PPE, since PPE is required to withstand the rigors associated with life-or-death impacts. Because of this, much of the waste generated from manufacturing these items are sold as recycle-grade plastic. Even the waste from the aramid fibers that are used in the manufacturing of our cut-resistant and heat-resistant glove liners and sleeves are sold to specialists who use them as a filler when manufacturing automobile brake pads. Now, that's ingenious!

## It's Not Always That Easy

Another main factor that impacts the recyclability potential of PPE is contamination. A significant number of gloves and garments are soiled with industrial grease or solvents that are commonly used in MRO or assembly operations. And it likely is next to impossible to determine the different types of contaminating residues or the even concentration of these contaminants. When you add in the need for decontamination to any recuperation and recycling operation, it makes the process much more expensive. That is likely why the vast majority of used gloves and garments end up in landfills.

The complexity outlined here is faced by many consumable items, it's definitely not an issue that's unique to PPE. Today, we see many manufacturers producing items that claim to have a high degree of biodegradability, often quoting their product is 5 times or even up to 100 times more biodegradable than non-sustainable options. These claims are based on general biodegradability standards that assess the amount of biogas (a mix of methane and carbon dioxide) that's released in lab simulated environments. This extrapolation is difficult to measure in terms of real benefits when you consider the most unknown and uncontrolled factor – the type of landfill that the PPE waste will eventually end up in. While there are more than 20 ISO and ASTM tests measuring biodegradability in various ways and environments, not much has been explored related to PPE. Making products that contain additives that speed up biodegradability is commendable. However, in our industry, these additives are typically added to nitrile which remains an inherently highly durable, oil-based synthetic polymer. More exciting technologies of a plant-based nature do exist – similar to reusable

bags mandated in many European countries – and may offer a future promise. But the mechanical properties of these materials today are not anywhere near what a nitrile or PU-coated material can offer. Latex is a natural rubber that will decompose more readily than synthetics, however, concern with allergies continues to relegate this product to a less popular choice.

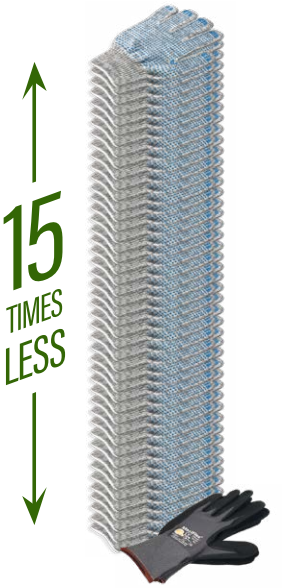
As a final point, which brings us back to the beginning of this blog; we need to be better educated on the terminology, as well as with the testing and decomposition technology of landfills. Whether a product is labeled "compostable," "biodegradable," "oxo-degradable," or "bio-based," it is important to know that plastics made from any of these terms may not necessarily be compostable or easily biodegradable. AND surprisingly, some plastics that do biodegrade can be made from fossil fuel-based materials.


**CLICK TO DOWNLOAD**

the **PIP® 3R™ Sustainability Program** Brochure

## So, What Do We Do?

PIP® believes we need to align our thinking to address PPE waste using a more "multifaceted" approach. This is why we developed the **PIP® 3R™ Sustainability Program.** The "Rs" stand for Reduce, Reuse, Recycle. While we are not claiming to be the originators of this concept, we would like to consider ourselves leaders in offering this as a pragmatic and transparent solution to a very big problem. Let's start with "reusing" and "reducing," which typically go hand-in-hand. In high-volume industrial settings. Our experience tells us that users tend to stick with one product because of lower upfront costs or, sometimes, just out of habit. PIP® has a variety of case studies demonstrating that using lower-cost gloves typically leads to exponentially more gloves being discarded because they wear faster and don't hold up well. This also results in numerous changeouts which negatively impacts worker productivity. In some cases, when comparing low-cost generic knit gloves to coated seamless knits, workers have reported that the coated seamless knit gloves last up to 15 times longer while experiencing much better comfort and dexterity. Other comparisons involving single-use disposable gloves, which have become a staple in a majority of industries due to the pandemic, indicate that opting for a more premium extended use barrier glove, such as Grippaz®, helps reduce the total amount of gloves used by up to 5 times. Now, that's a lot fewer gloves going to a landfill as well as a significantly smaller number of changeouts happening each day.




Reducing and reusing can also be achieved by laundering or even simple gloved-hand washing. PIP® field observations indicated that up to 40% of gloves may be prematurely disposed because they are dirty or workers just like the feeling of a "fresh pair" at the beginning of their shift. Professional industrial launderers are there to help companies initiate a glove laundering care service, but we realize that may be too much for small organizations. Nearly the same result can be achieved by providing workers with a predetermined set of gloves then asking them to wash and hang the gloves in an aerated space at the end of their shift. A habitual rotation of this process will have them working with a fresh pair for a lot longer.


The final tenant of the **PIP® 3R™ Sustainability Program** is Recycle. PIP® can team customers up with onsite waste recuperators to help recycle used PPE. This concept is already very popular with batteries, light bulbs and fluorescent lights: The idea here is to divert millions of pounds of waste from landfills and incinerators each month by creating a recycling program where used PPE is collected and sent to be sorted then repurposed into new products such as rubber mats, plastic pallets and other recycled plastic products. This partnership introduces a recycling program for end-users who want to go the extra mile in ensuring that consumed PPE is disposed of in a better way. It is in the spirit of true life cycle development that PIP® seeks a more solution-oriented, front-end approach where, ideally, we know what new products will be made from spent recyclable materials.

## Final Thoughts

No PPE manufacturer has an exclusive solution to waste reduction. There needs to be a multi-pronged approach that is not proprietary to anyone. It is possible that down the road, new materials can be developed that are easily recycled into tough-wearing products that stand up to the rigors and testing required for PPE or that biodegrade quickly into most landfills and may even be compostable. This is something that we all seek for the benefit of the industry as well as for the futures of our children.

Learn more about PIP's sustainability initiatives here.

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05/2022

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