



The Phifer Story

- Phifer – founded in 1952
- Phifer – a name you can trust
- Made in the U.S.A.
- 1,000+ dedicated employees

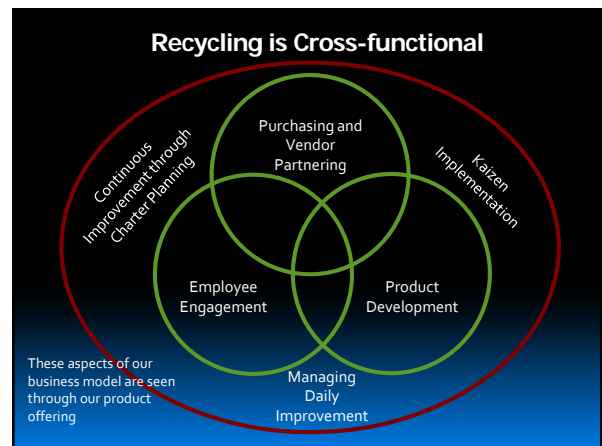
- Main office & manufacturing, Tuscaloosa, AL U.S.A.
- Core business is insect screening
- Only U.S. manufacturer of aluminum and fiberglass screening

Proven Leadership

- **#1 Screen Supplier** in Window & Door and Pool & Patio markets
 - Supplying Manufacturers, Retail and the Specified Commercial market
- Established distribution network across North America
- Leader in bringing **new products and innovation** to the market
- **Offer the industry's most diverse product line** of metal, fiberglass and polyester screening
- Drive our business with Continuous Process Improvement, creating measurable goals and tracking metrics to measure performance

Business Excellence

- ISO Certified 9001:2008
- Members of WDMA, SMA, AAF, & Fenestration Canada
- Comprehensive disaster recovery & risk mitigation plan
- First insect screen weaver to offer GREENGUARD certified screening products
- First weaver to offer Bio-Based Fiberglass Insect Screening for European markets
- Recipient of multiple supplier & vendor of the year awards for quality, delivery, and overall customer service.



Recycling Starts with Planning

The process foundation is built upon our Charter Planning driving direction for all areas of the business.

Waste and Scrap reduction remain core goals and recycling supports that effort engaging our entire work force

How

- Phifer's product development staff strives to create new innovations and products for the various markets we serve dedicated to innovation, sustainability, and meeting the demands of our customers and markets.
 - Recycling for products starts here.
- Partner with suppliers for cradle to cradle solutions
- Make internal recycling of traditional and raw materials easy for employees through 5S(Work Site Organization) and other point of use tools
- Address all aspects with focused Continuous Improvement:
 - Engage the entire team for effective daily execution
 - Drive daily and long term improvement.
- Re-Purposing both raw materials and finished product

Let's see it in our products . . .

Markets Served by Phifer

- Window & Door



- Patio Market - Pool Enclosures, Screen Rooms, expanded living areas in Florida



Markets Served by Phifer

- Retail Big Box – Hardware Aftermarket



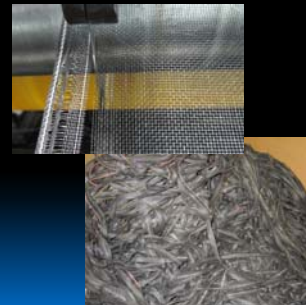
- Europe- Retractable Screens



Recycling Challenge = Fiberglass + PVC

- It is challenging to recycle products with fiberglass and PVC components
- Our direct goal is to keep scrap to a minimum thru all aspects of our manufacturing processes
- We continue to be more aggressive with these goals
- But how do we recycle fiberglass and PVC?

Fiberglass Screening Manufacturing Trim



Today's alternatives include:

- Re-purpose recycling for recreational products is on pace to double in 2016
- Projected by our customer to double again in 2017

Markets Served by Phifer

- Interior Shading
 - Sheerweave
 - Infinity
 - 100% Recycled Material
 - 100% Recyclable product
 - Dow Ecolibrium
 - Bio-Based Plasticizers 
 - Reduced Petroleum usage
 - Performance Plus
- Exterior Sun Control
 - Suntex
 - Sunscreen
 - Super Solar Screen





Markets Served by Phifer

- Specified Commercial

SheerWeave fabrics are solution-oriented for today's building designs:










- Solar Heat
- Outward Views
- Glare
- UV Damage
- Product Maintenance
- Interior Noise Pollution
- Environmental Standards
- Product Content

Infinity₂

Infinity₂ fabrics comply with "green" building initiatives such as LEED (Leadership in Energy and Environmental Design) where minimal environmental impact is required while maintaining the look and performance of traditional sun control fabrics

- Produced from **100%** post-industrial recycled content
- **100% recyclable** TPO (Thermoplastic Olefin)
- **100%** of internal scrap is recycled
- Through effective engineering Infinity₂ has surpassed performance expectations
- PVC free
- Active reclamation program offered by Phifer
- Volumes outpacing other product categories

AVAILABLE COLORS		
 Cotton PG1	 Almond PG2	 Barley OG1
 Stone PG4	 Wheat PG3	 Nickel VG1
 Midnight VG2	 Bark VG3	 Slate VG4

Markets Served by Phifer

- Filtration – Hydraulic, oil, fuel, and air Filters
- Drawn Wire- Tea Bags, metalizing, chub wire, rivets, brake pads, clips
- Phifer is the largest weaver of Aluminum and Steel. It is **100% recyclable**.
- **100% of all scrap is recycled**
- Wallboard – Backerboard
 - Ceramic tile
 - Kitchens, bathrooms





Markets Served by Phifer

- Outdoor Patio Furniture
- Floor coverings, Wall coverings




Vendor Partnering Recycling

Pellets from Supplier → Yarn → Fabric



Change-Over Coating waste → Returned to Supplier → Water Hose



Waste Oils

- Waste Oils from aluminum and steel wire drawing
 - Used as a processing lubricant
 - 100% Recycled
- PVC yarn and fabric finishing byproduct
 - As components within the raw materials
 - Waste petroleum is driven out of the product during finishing and collected for 100% recycling
- Oil Filters
 - 100% Recycled
- All Waste Oils are reclaimed through a third party for alternative uses

Water Recirculation

- Phifer's finishing lines use Emissions Scrubbing systems
 - Scrubbing system water recirculates were installed to displace the continuous use of city water

Common Recycling Manufacturing Waste Streams

100% of Corrugated baled and recycled, 600K Lbs annually



100% of plastic collected and recycled, 30K Lbs annually

After yarn cores complete MULTIPLE uses, 100% are recycled, 200K Lbs annually



More Common Recycling

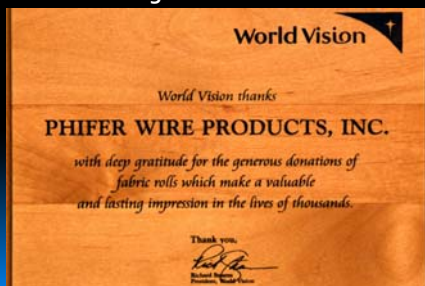
100% of office paper both confidential and standard is recycled thru bins in office areas and meeting rooms



100% of break rooms are serviced with aluminum can and plastic bottle receptacles. We have outstanding participation.

World Vision and Phifer

- Donations to Re-Purpose Fabrics from our Sheerweave and Design Fabrics product lines
- Donations of Phiferglass and Aluminum Screening



Phifer Fabrics Impacting Through World Vision





Phifer Recycling:

- Planning
- Goal Setting
- Product Engineering and Innovation
- Meeting the demands of the Specified Commercial Market and others with Recyclable Products
- Vendor Partnering
- Traditional Recycling and Employee Engagement
- Re-Purposing
- Continuous Improvement

"Weaving Excellence with Innovation"

www.phifer.com

THANK YOU!

Visit us at

www.phifer.com