

SUSTAINABILITY REPORT

HAZEN PAPER COMPANY

2025



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Data included within is representative of the 2024 calendar year results

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THE FOUNDATION

Hazen Paper was founded in 1925 by John N. Hazen in Holyoke MA. John had grown up on the Connecticut River in Hanover NH and served in the US Military in the First World War after which he sought his fortune in Holyoke. Holyoke was the largest industrial city on the Connecticut River at that time. Known as the “Paper City,” it was founded on a mammoth hydro-power system of dams, canals and spillways. Edward (Ted) Hazen, an engineer and John’s brother, joined the company in 1928 and the Hazen boys built the business on the decorative embossing of specialty papers. The company developed a new sheen embossing process with patented technology.

The company grew rapidly through the Depression and in the 1940’s the Hazen’s expanded into the lamination of aluminum foil to paper for use in ammunition packaging and for radar evading chaff.

After the World War Two, the company focused on decorative papers for cards, wraps, labels, tickets and packaging. The marriage of the sheen embossing process with chrome like aluminum foil suited the aesthetic of the Post War era and Hazen grew steadily for decades.

In 1968 the second generation, Bob and Tom Hazen, expanded and moved the company into its current facilities between the Third Level Canal and the Connecticut River. Bob and Tom expanded and modernized all facets of the business and dominated their markets with a strategy built on offering the highest quality product, rapid innovation and an absolute dedication to customer service. Gravure coating and the lamination of aluminum foil to papers of various types was the backbone of the business. The Hazen’s have always been deeply involved in the day to day operation and leadership of the business. The Hazen’s eat, breathe, and sleep the Hazen Paper Company and have always been very involved in the local community. Hazen has always been extremely conscientious about its environmental responsibility and was recognized for its environmental commitment by the State of Massachusetts in 1990. Hazen is not a newcomer to environmental sensitivity.



THE METAMORPHOSIS

As the baton was handed to the third generation of Hazen's, John H. and Robert E. Hazen, the fundamentals held fast. John and Bob have been deeply immersed in the onsite management and leadership of the company since 1990. The basic Hazen strategy of maintaining the highest standards of quality and service are still sacrosanct. However, the bar was raised dramatically on innovation and in the new millennium the Hazen's have reinvented the company.

In the late 1980's it became evident that society required a more enlightened ethos about protecting the planet. There was a great awakening to the need to conserve energy and natural resources and to protect and restore our mother earth. It was evident to the Hazen's that the future of the company depended on its success in developing new recyclable products that used less resources. Traditional aluminum foil and "met-poly" laminations, though technically recyclable on an industrial level, did not meet FTC guidelines for curb side pickup standards of recyclability at the consumer retail level.

Transfer metallization is a lamination technique whereby a sub-micron layer of coating and an incredibly thin (300 angstrom) layer of aluminum is transferred to paper from a light gauge carrier film. With aluminum foil or met-poly lamination the laminate is permanently adhered to the paper to create a new composite. The laminate is typically at least 6 microns and commonly 12 microns. Met-Poly is typically 12 microns thus the substitution of a met-poly with transfer metallization represents greater than 90% source reduction. In place of the 12 microns of plastic (Met-poly) is a sub-micron layer of coating and a 300- angstrom layer of aluminum. The aluminum layer is so thin that it is measured with light transmission. Transfer metallized paper has been generally viewed as recyclable for many years. The transfer film can be re-used and is ultimately recycled. An angstrom equals one ten-billionth of a meter.

Hazen built its' in-house holographic and metallizing operation beginning in 2007. This was a gargantuan undertaking that required radical innovation and a "bet the farm" capital investment. Hazen was vertically integrating. Prior to 2007 Hazen purchased holographic and metallized films from third party vendors. However, the previous decade had seen dramatic industry consolidation and off shoring by metallizers and holographic embossers.

The independents all sold out to mammoth multi-national companies. Early in the new millennium, outsourcing to China, India and other freewheeling developing nations became the dominant trend. Hazen's contrarian decision to set up its own holographic operation in North America was made with eyes wide open and with the understanding that risk was existential. No other laminator in the Americas had ever undertaken an organic expansion of this magnitude in more than a decade.

Ultimately, Hazen built a film coating, holographic embossing, and metallizing operations in Holyoke that resulted in one of the most vertically integrated and efficient transfer metallization operation in the world. Keeping in mind, Hazen already had the largest foil and decorative film laminating operation on this continent.

MESSAGE FROM OUR LEADERS

As a third generation family owned business , we are greatly committed to fostering a culture of excellence and sustainability within the Pioneer Valley community of Western Massachusetts.

Hazen's product line Envirofoil®, which is transfer metallized and plastic free, continues to be a focal point by brands across the globe. In 2024 we hear of economic uncertainty and potential of tariffs carrying great weight. Hazen's Envirofoil® is a prime solution to traditional aluminum laminates, which would be impacted by tariffs. The amount of aluminum used in the creation of our Envirofoil® is extremely small, approximately 300 angstroms. To put that in perspective, this is about 30 times thinner than a human hair! All of this incredible technology can be applied using Hazen's holography as well. The Freeform Fresnel Lens, as seen in the "Hazen 100" logo, offers an incredibly three dimensional, spatial, look and feel. What's most unique is that Hazen is able to implement this technology in commercial applications for consumer segments such as cosmetic and pharmaceutical cartons within their recyclable Envirofoil® product line. From a technical standpoint. This incredible technological advancement allows Fresnel lens packaging in the consumer goods sector, traditionally made a 1-2 mil PET, to now be created as a plastic free substrate.

As we enter 2025, we realize that the post pandemic era has not brought more stability as some may have hoped. As we have for 100 years, Hazen will continue to adapt and persevere with a focus on incredible optical effects for packaging and print while being an industry leader for quality.



“As we have for 100 years, Hazen will continue to adapt and persevere with a focus on incredible optical effects for packaging and print while being an industry leader for quality.”

SUSTAINABILITY PILLARS



01 — PEOPLE

Our people are our most important asset. Hazen places extreme pride in the team here in Holyoke that create products like no other in the world. As such, we invest heavily in training, diversity, and equality across the workforce to foster a culture of excellence.



02 — PLANET

Hazen aims to not only produce sustainable product lines, but also to optimize the way in which these products are manufactured to reduce or eliminate environmental impact.



03 — PERSEVERANCE

At our 100th anniversary, Hazen takes notable steps to ensure viability for many generations to come. This includes both financial metrics as well as social and community impacts.

KEY PERFORMANCE INDICATORS & RESULTS

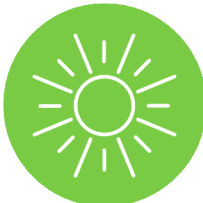


01 — PEOPLE

KEY INDICATOR	OUTCOME
Injury Rate	1.73 hours per 100,000 hours worked
Percentage of Employees who have completed Code of Conduct Training	100%
Total number of female employees	42 or 20% of total staff
Women in Management	9
Percentage of employees from diverse ethnicities	25%

Hazen Paper has been blessed with incredible and dedicated employees throughout our history. The Hazen's have long recognized that the success of Hazen Paper is primarily a function of the efforts and commitment of our employees. We continue to build a diverse workforce where individual and cultural differences are respected and where employees can reach their full potential.

KEY PERFORMANCE INDICATORS & RESULTS



02 — PLANET

KEY INDICATOR	OUTCOME
Total Solid Waste to Landfill from Manufacturing	0 lbs in 2024
Percentage of Renewable Energy Used in Manufacturing	85% Carbon Free Energy via Hydropower & Solar
Retail Plastic Replacement via Hazen's Envirofoil®	68,898,007 lineal Feet of plastic avoidance in the marketplace via Hazen Envirofoil®* in 2024. Over 1 million pounds of plastic.



Holyoke Dam: Powering Hazen Paper with Hydropower

*Plastic avoidance is determined by a client choosing Hazen's Envirofoil®, which is plastic free and recyclable, rather than traditional metallized polyester film of foil-based alternates.

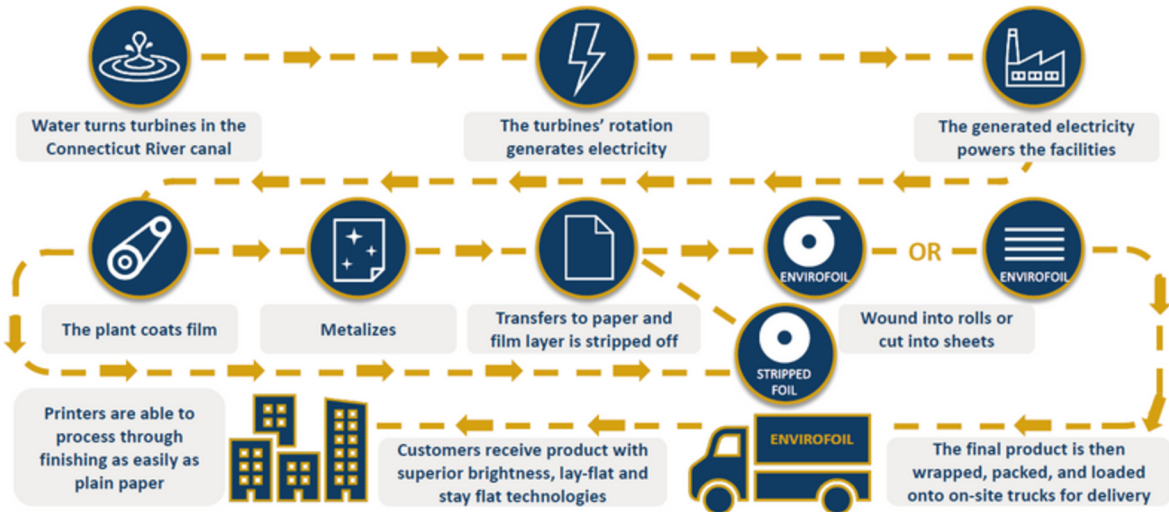
KEY PERFORMANCE INDICATORS & RESULTS



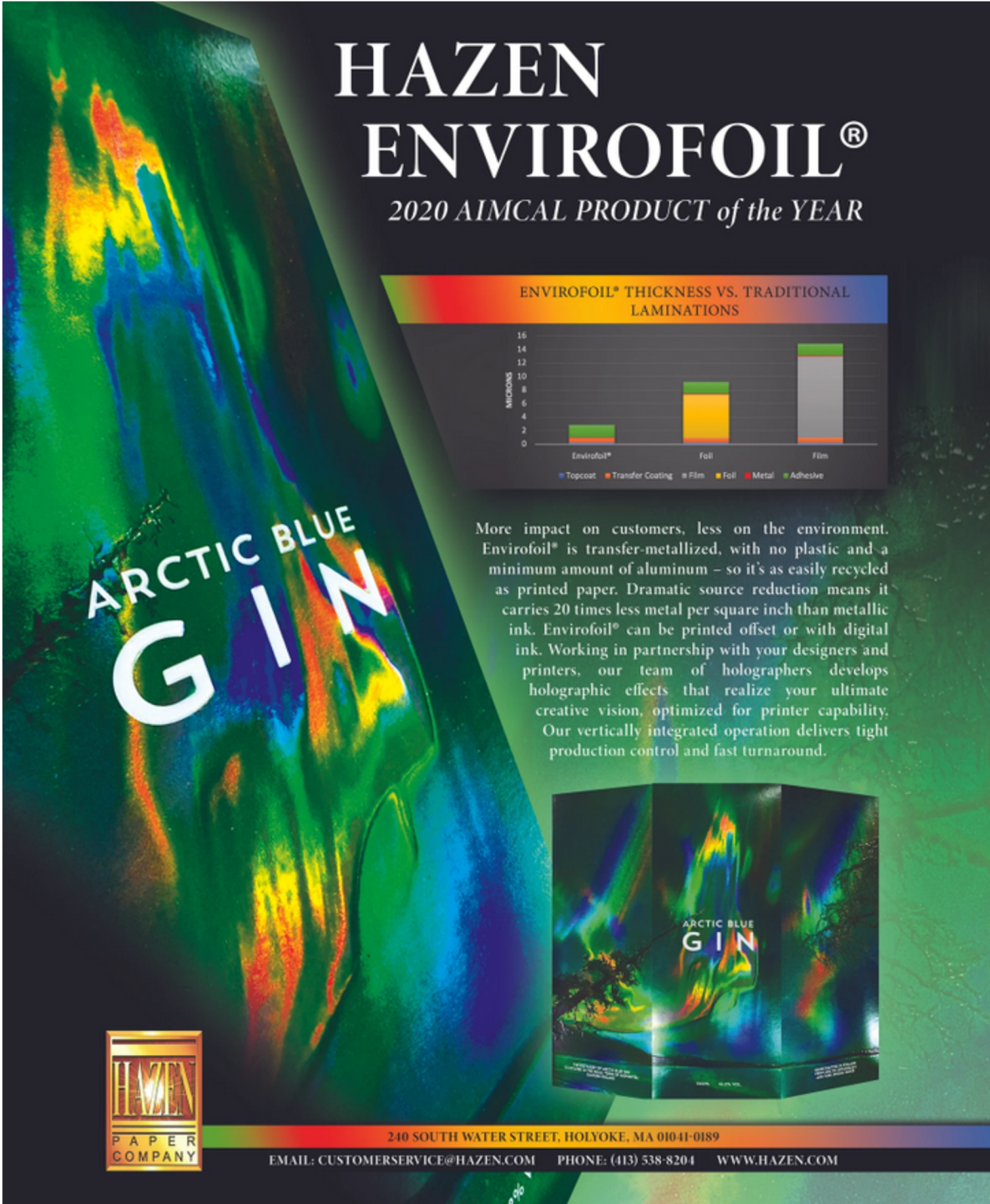
03 — PERSERVERANCE

KEY INDICATOR	OUTCOME
Products lines with defined sustainability benefits	Five key product lines
Community Outreach and Education	World Is Our Classroom: 9 classes and sessions hosted in 2023. Read more: Page 17
Sustainable Product Developments	Sustainable Flexible Packaging: Hazen partnered with a major packaging producer to develop a solution aimed at replacing a 100% plastic flexible package using a paper and minimally thin plastic film composite that maintained recyclability.

Hazen’s Patented Envirofoil® Transfer Metallization Process



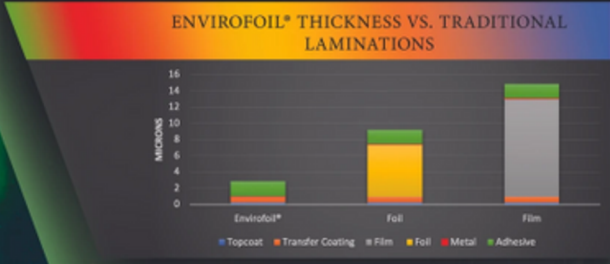
ENVIROFOIL® SOURCE REDUCTION INFOGRAPHIC: THICKNESS COMPARISON TO TRADITIONAL FILM AND FOIL PRODUCTS



HAZEN ENVIROFOIL®


2020 AIMCAL PRODUCT of the YEAR

ENVIROFOIL® THICKNESS VS. TRADITIONAL LAMINATIONS



Product	Topcoat	Transfer Coating	Film	Foil	Metal	Adhesive	Total Thickness (microns)
Envirofoil®	0.5	0.5	0.5	0.5	0.5	0.5	3.0
Foil	0.5	0.5	0.5	5.0	0.5	0.5	8.0
Film	0.5	0.5	10.0	0.5	0.5	0.5	22.0

More impact on customers, less on the environment. Envirofoil® is transfer-metallized, with no plastic and a minimum amount of aluminum – so it's as easily recycled as printed paper. Dramatic source reduction means it carries 20 times less metal per square inch than metallic ink. Envirofoil® can be printed offset or with digital ink. Working in partnership with your designers and printers, our team of holographers develops holographic effects that realize your ultimate creative vision, optimized for printer capability. Our vertically integrated operation delivers tight production control and fast turnaround.

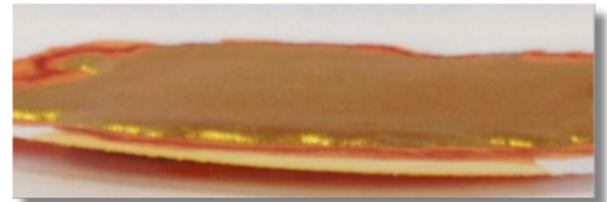


HAZEN PAPER COMPANY

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ENVIROFOIL® SUSTAINABILITY CASE STUDY: GODIVA AIMCAL AWARD

The Technical Award in the Packaging: Food Category went to Hazen Paper Co. (Holyoke, MA) for its role in metallizing, coating and laminating box wrap for a gift box for Godiva Chocolatier, Inc., (Wyomissing, PA). The box, designed by Godiva's Global Design Group (New York, NY), features Hazen's transfer-metallized Envirofoil® paper, which is micro-embossed, modified tip-coated gold and flood-coated clear. The nano-thin layer of texturized aluminum and lightly applied gold tint and clear coat impart a lustrous effect as well as scuff and crack resistance. Compared to its previous box wrap, the gold coating relies on proprietary colorants that achieve the desired appearance with 98% fewer particulates and a significant reduction in energy consumption to apply and dry multiple layers of particulate-laden ink. The transition to Envirofoil® paper and the proprietary gold coating cuts costs 50%. Savings resulted from improved drying efficiency, which more than doubled line speed, plus a basis weight reduction of 25% to 60-lb paper. Verso Corp. Specialty Papers (Stevens Point, WI) supplied the substrate, while Burt Rigid Box, Inc. (Oneonta, NY), served as the converter for the project. The judges were impressed by the savings in both money and material. Despite the reduction in pigment usage, "It's a beautiful gold," said one judge. "The package is simple, but quite effective," added another.



OLD COATING



ENVIROFOIL®

98%

Hazen and Godiva's achievement with Envirofoil® resulted in a 98% particulate reduction.

SUSTAINABLE PRODUCT AWARDS

2023 IHMA EXCELLENCE AWARD: BEST APPLIED PACKAGING PRODUCT
HAZEN HOLOGRAPHIC ENVIROFOIL®: 2023 BASKETBALL HALL OF FAME ENSHRINEMENT BOOKLET



HOLYOKE, MASSACHUSETTS – Hazen Paper’s 11th Enshrinement Yearbook cover for the Naismith Memorial Basketball Hall of Fame in Springfield, Massachusetts is a light show worthy of the dazzling Dome. The limited-edition 2023 cover, created with Hazen HoloJet® paper, projects an amplified refractive three-dimensional image of a basketball symbolizing the Hall of Fame Dome.

According to Hazen President, John Hazen, “once again the Hazen holographic team has raised the bar amplifying the special effects each time to ensure the cover is more exciting than ever.” For 2023, this includes Fresnel Lens technology and a new holographic element Hazen calls “Metal-Morphosis™,” utilizing a new deep-groove system for sharper images and greater dimensionality. Appearing to move and change with the angle of light, the holographic treatment induces engagement and interaction with the book.

Hazen originated the holography completely within its vertically integrated Holyoke facility for superior quality, performance, and efficiency. The custom holograms were created in Hazen’s holographic laser lab, then micro-embossed and transfer-metallized onto smooth, 12-point WestRock Tango C2S using Hazen’s environmentally friendly Envirofoil® and HoloJet® process. The holography is created with an optical structure that is imparted on the surface of the paper (underneath the printed graphics) with an ultra-thin polymer layer that is less than 2 microns in thickness. Envirofoil® is a non-plastic paper that is recyclable as paper.

2- THICKNESS OF ENVIROFOIL®, IN MICRONS. A HUMAN HAIR AVERAGES 70.

SUSTAINABLE PRODUCT AWARDS

2024 GOLD LEAF AWARDS FOR SUSTAINABLE EMBELLISHMENT



2024 Super Bowl Stadium Edition Program
on Hazen Envirofoil®
2024 Winner: Silver Leaf, Best Use of
Holographics

2024 Hazen Paper
“Lionheart”
Calendar on
Envirofoil®
2024 Winner: Gold
Leaf, Best Use of
Foil Embossing -
Calendar



Hazen Envirofoil®: Direct Mail by
Parkland Direct
2024 Winner: Gold Leaf, Best
Use of Transfer Metallization

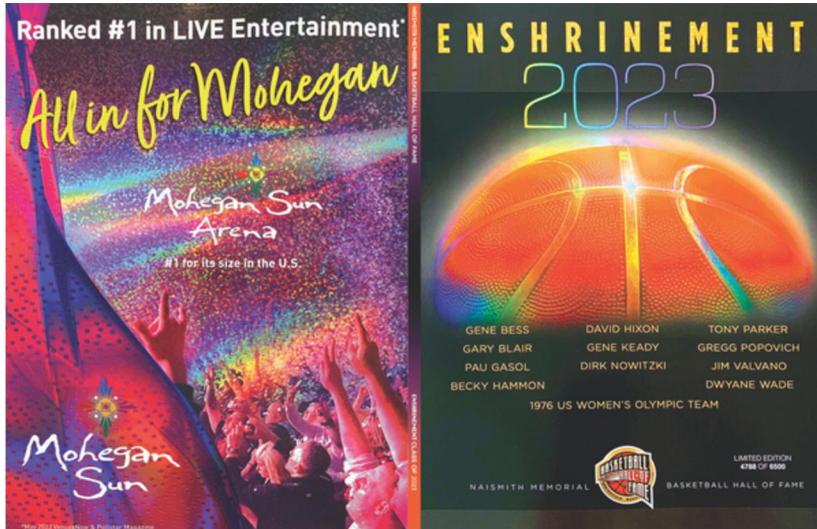


19/20

Interseroh’s recyclability center ranks the Envirofoil® family of products an “A”, scoring a 19 out of 20 in overall recyclability.

SUSTAINABLE PRODUCT AWARDS

2024 GOLD LEAF AWARDS FOR SUSTAINABLE EMBELLISHMENT



Basketball Hall of Fame
Enshrinement Book featuring
Hazen Envirofoi®
2024 Winner: Silver Leaf, Best
Use of Transfer Metallization

Iridophore - by Indigo Ink using
Hazen Rainbow Holojet® for
digital print
2024 Winner: Bronze Leaf, Best
use of Transfer Metallization



**“RECYCLABLE
WITH PAPER”**

Hazen’s Envirofoil® earned the use of the
designation: “RECYCLABLE WITH PAPER –
Aticelca® 501” via Lucense in Italy.

Certificate

Made for Recycling

Hazen Paper Company

We hereby confirm the recyclability of the following packaging:
Hazen Silver Envirofoil®

Test result

Very good
19 of 20 points

Test criteria

Assignability to the collection system
Sortability of the packaging
Suitability for mechanical recycling

2 of 2
6 of 6
11 of 12

Testing standard: Criteria and evaluation methodology of the bifa Umweltinstitut GmbH, tested by the Fraunhofer Institute for Process Engineering and Packaging (Fraunhofer IVV), last updated:

This certificate 2138 is valid until 22.07.2025 (two years after issue). Any change in the packaging components will render this certificate invalid.

Cologne, dated 24.07.2023

Test and evaluation executed by
INTERSEROH+ GmbH

Evaluation methodology developed by
bifa Umweltinstitut GmbH


Markus Müller-Drexel
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Prof. Dr.-Ing. Wolfgang Rommel
Managing Director

PROCUREMENT POLICY



Hazen Paper Company acknowledges the importance of the social and environmental impact that purchasing decisions create. The Purchasing department aims to only procure materials from companies that have a positive impact on the public, their employees, and the environment. By accepting an order from Hazen, the supplier represents and warrants that the materials have been produced in compliance with the requirements of the Fair Labor Standards Act of 1938. The supplier must not discriminate against any employee or applicant because of age, race, creed, color, sex, or national origin. The supplier must comply with all provisions of all federal, state, and local laws and regulations (ex. US Lacey Act and the EU Timber Regulation). Hazen Paper Company is Chain of Custody Certified from multiple certification bodies for paper and board products. Hazen values suppliers who hold the same certifications as it acknowledges that they are acting both ethically and sustainably in the purchase of their raw materials and conversion of product for Hazen.

SUSTAINABLE FORESTRY



Another major sustainability effort Hazen Paper has invested in, is Tri-Certification in Chain of Custody for wood fiber sources. Becoming Chain of Custody (CoC) certified demonstrates Hazen's commitment to the environment and vitality of a key raw material resource. Hazen's focus is to bring in paper and paperboard from responsible suppliers, who are also committed to sustainable forestry. There is no question the critical importance of forests to our planet, and we must safeguard this invaluable resource by ensuring they are used in a manner that allows regeneration without destruction. Hazen Paper continues to meet demanding environmental, economic and social criteria in order to be a key link in the chain from the forest to the consumer. These strict criteria include unacceptable activities such as illegal logging and converting of forests for non-forest use. Hazen also recognizes the International Labor Organization and follows and supports laws and rights with respect to the consumption and/or trafficking of endangered wildlife, the elimination of discrimination, and abolition of child labor and all forms of forced or compulsory labor. Hazen Paper has maintained Chain of Custody tri-certification since 2008.



The mark of
responsible forestry



SUSTAINABLE
FORESTRY
INITIATIVE

SFI-00599

SOLID WASTE



Hazen Paper strives for 100% waste recycling. All materials that can be recycled must be recycled and all waste materials must be sorted into their proper designated containers. This includes but is not limited to all paper, wood, steel, aluminum, polyester, cardboard, plastic, and all by-products associated with the manufacture process. All Hazen Paper employees are held accountable for following the recycling methodology and guidelines set forth.

RECYCLING TOTALS (pounds recycled)	2022	2023	2024
PAPER & BOARD	894,000	568,905	716,000
STEEL / ALUMINUM	209,000	159,875	199,500
POLYESTER	1,028,000	998,510	1,044,000
LAMINATED	3,831,000	2,695,100	2,725,600
WOOD	240,000	243,750	274,500
CORRUGATED	242,000	225,575	236,000
OTHER RECYCLED	150,000	166,400	166,400
LANDFILL	0	0	0
TOTAL RECYCLED	6,594,000	5,058,115	5,362,000

HYDROPOWER



More than two-thirds of Hazen's electrical power is provided by the Holyoke Gas and Electric renewable hydro facilities. With a 90%-plus efficiency rate, hydropower is one of the most efficient, clean, renewable energy sources.

Furthermore, approximately 7% of Hazen's electrical supply comes from Solar. In total more than 85% of Hazen's electrical supply is carbon free.

The Holyoke Canal system is a three tiered, 4 1/2 mile system that runs throughout downtown Holyoke and provides water to approximately 11 in-service generating stations which have a total combined capacity of approximately 17 megawatts. The three Canal system tiers are known as the First, Second and Third Level Canals. The drop between canal tiers, as well as drop from the Canal System back into the Connecticut River, multiplies the electric generation by three separate times using the same water.

PEOPLE AND COMMUNITY

The leadership of Hazen Paper has always been very active in the community, especially in Holyoke. In 2004 Hazen started to sponsor The World Is Our Classroom. This is a public partnership whereby every fifth-grade classroom in the Holyoke Public School system comes to Hazen's Holographic Studio in the North Plant for a day long field trip. This has since been rolled out to high school students as well. Hazen employees participate in the presentations which include discussions of various jobs at Hazen, a plant tour, a hands-on paper making project and "The Career" game. Science teachers from local colleges teach lessons on the life cycle. Since 2004, more than 250 classrooms have taken place and more than four thousand 5th graders have spent a day at Hazen Paper. The amazing thing is that Hazen now employs graduates of the World Is Our Classroom. The cycle has come full circle. Today's student is tomorrow's leader.



World Is Our Classroom Graduates – Gabriel Diaz and Giovanny Pagan

Position: Maintenance and Manufacturing

Age: 25-27

School (HS and/or College): Holyoke High School and Westfield State University

Years at Company: 3 -10 years

Hazen Paper has been blessed with incredible and dedicated employees throughout our history. The Hazen's have long recognized that the success of Hazen Paper is primarily a function of the efforts and commitment of our employees. We continue to build a diverse workforce where individual and cultural differences are respected and where employees can reach their full potential.

LOOKING FORWARD

As we progress into 2025, a key focus is on implementation and expansion of our key sustainable product lines into market. Hazen is actively engaged and working with major brands for implementation of Envirofoil®; a transition that would eliminate notable plastic waste in the consumer good sector that ultimately ends up in landfill. Furthermore, Hazen is working on major new product development opportunities with plans to expand its sustainable footprint into new markets, such as pharmaceutical packaging, cold foil, and more. We strongly feel the value we bring to the market via our product offering, combined with carbon-free manufacturing via hydropower, offers an extremely unique and attractive solution for brands owners across the world.



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