

Vishakha is proud to announce the launch of REGAIN, India's first breakthrough innovative technology that will **transform the way we use plastic.**

Reclaim Plastic

REGAIN Life



Reclaim Plastic.



Regain – A Revolutionary Technology to drive Circular Economy ahead

Save thousands of tons of plastic with Vishakha's regain.

A Recyclable Packaging System to make barrier nylon/evoh flexible packaging films recyclable in to continuous polyethylene matrix that drives circular economy ahead.

We have launched India's first ever recyclable barrier film for liquid packaging at PlastIndia 2018. A headway that will not only allow increased use of recyclable plastic materials, but also will provide incentives for recovery of post consumption plastic waste.

According to a research of the Ellen MacArthur Foundation (EMF), while 40 percent of plastic ends up in landfill and only one-third in fragile ecosystems, just 14 percent of the plastic packaging used globally makes its way to recycling plants. At Vishakha, we continuously strive to create sustainable products and solutions for the future. This has encouraged us to develop REGAIN- recyclable nylon/evoh based co-extruded & laminated barrier films and ready-made pouches for liquids, solid and semi liquid packs. Regain enables an increased use of recycled plastic materials, reclaiming plastic's life, and provides an incentive for recovery of post consumption plastics waste to eventually regain life.

Regain is developed after an unceasing demand of the industries and society to create a novel product that provides the functionality of plastic packaging and minimizes plastic waste by putting the used plastic to better use thus enhancing the circular economy value chain. These films are fully recyclable (continuous polyethylene matrix) and the recycled plastic thereafter can be used for varied advantageous applications and processes. Regain will not only help make strides towards environmental protection but will also add value creation through sustainable material..

REGAIN Life.

Plastic has become an integral part of our day-to-day lives.

Though a life without it seems tough, multiple use of the same plastic and minimising disposable plastic waste can enable a greener tomorrow.

The key is- recycle, reuse to reduce

The ever-changing consumption patterns have led the food industry to increasingly use barrier packaging to extend a product's shelf life. Since nylon/evoh raw material is used in the co extruded flexible barrier packaging, it provides wide-range of oxygen transmission rates-for longer packed product shelf life. Also, it acts as an excellent barrier against moisture, gas, oxygen and aroma.

Though barrier packaging is useful for the consumer, scraps of barrier films are not easy to recycle due to the incompatibility of polar and non-polar polymers in the structure. They are of no value as the scraps cannot be put to reuse in new applications. More so, the plastic waste is increasing by many folds. But with specifically designed to polyamide (nylon) and EVOH (ethylene vinyl alcohol) with polyethylene mix matrix structures, Vishakha's Regain plastic barrier film can be fully recyclable and meet industry's sustainability goals.



Flexible plastic packaging

An increasing challenge for the world

Sustainable and recyclable packaging is the future. Let us discuss few of the many challenges manufacturers, brand owners and end users face with the existing flexible plastic packaging:

- Multiple current mix structures cannot be fully or hard to recycled because of the use of mixed polymers in the structure. Scraps of films are difficult to recycle because of incompatible polar and non-polar polymers (such as films typically involving PET laminated to sealant substrates consisting of PE or PP dependent upon the applications)
- It is difficult to deliver a fully PE based structure as many barrier, mechanical and functional properties are compromised. This leads to poor product's shelf life, low pack strength raising challenges during storage, transportation, logistics, material handling, stability of products, etc.
- It becomes difficult to use fully PE based structure on existing FFS machines and using vacuumised packaging process.
- Current levels of their usage and disposal generate several environmental problems.
- Because of the durability of the polymers involved, enormous quantities of discarded end-of-life plastics are accumulating as debris in landfills and in natural habitats worldwide.

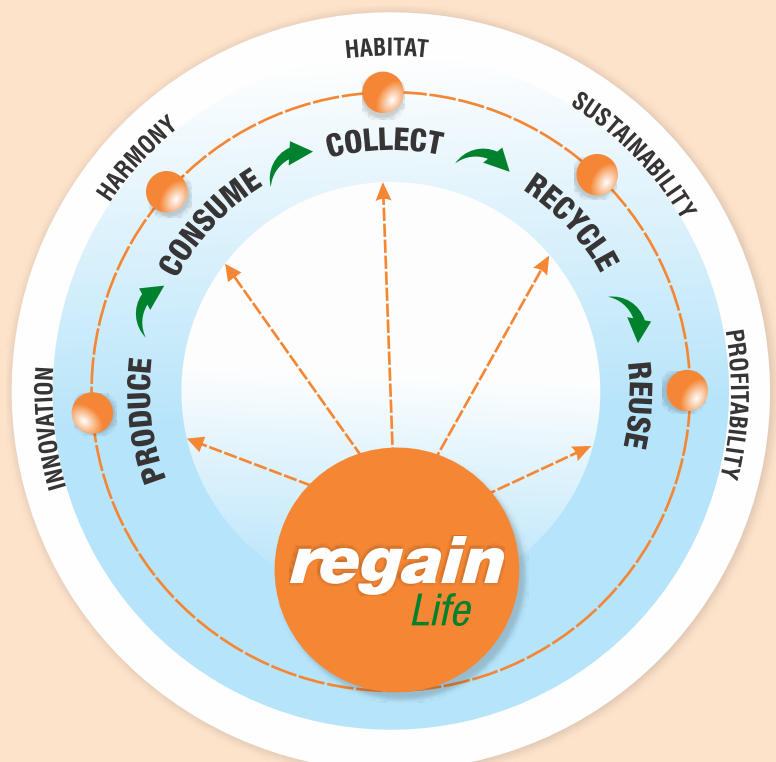
Vishakha envisions to create solutions that enrich living. While doing so we continuously work to contribute to the sustainable growth of the society. Regain, our breakthrough recyclable barrier film technology, sets the future of packaging in the country.

These films are made with special formulation, which enables packaging scrap recycle into a continuous polyethylene matrix. It liberates the end product from the challenges and complications in multilayer flexible barrier packaging.

These films are 100% recyclable (continuous polyethylene matrix) and once recycled can be reused for many other applications processes. They ensure secure packaging and effortlessly replace conventional films that are non-recyclable or are tough to recycle and are laminated or coated in multi-step process.

First in India, this innovation is used to create next generation single step co-extruded barrier films for Form Fill Seal, ready-made pouches and other applications. Further the recyclable barrier films offer to laminate with PE based film substrate. This lays a crucial foundation towards environmental protection and by adding value creation through a sustainable material. With Vishakha's Regain we have added another cutting-edge solution to our assemblage by offering a recyclable barrier film solution which will not only enhance product's shelf-life but also help society build a better future.

REGAIN - The future of Packaging is Here



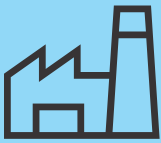
Top 10 Properties

- 1** Cutting-edge formulation of recyclable barrier films & pouches
- 2** Opportunity to make better use of recycle stream by avoiding landfill
- 3** Wide range of oxygen transmission rate for an extended packed product shelf life
- 4** Outstanding barrier properties against gas and moisture
- 5** High resistance to oil and solvents and excellent aroma retention power
- 6** Low leakage, high filling rate providing more profit to users
- 7** Exceptional mechanical properties at low thickness
- 8** Powerful strength characteristic allows down gauging the thickness and enables superior stiffness
- 9** Excellent hot tack, sealing property & higher temperature resistance films
- 10** Attractive packaging with brilliant printability



Regain Advantage

Regain, is the need of the hour. It meets the demand of the brand owners, end consumers and society at large to reduce plastic waste and put it to a better use without compromising on functionality of packaging and bringing sustainable growth for all stakeholders.



Manufacturers

- Regain films are wholly recyclable (continuous polyethylene matrix)
- They effortlessly replace the conventional laminated materials which are non-recyclable or difficult to recycle
- The high quality secondary material is efficiently used for many other application processes
- Resource management and waste reduction at their facilities to increase their profitability



Brand Owners

- Regain Films are super secure packaging offering clear advantages over alternate films that are non-or hard to recyclable films, laminated or coated in multi-step processes
- The technology helps to divert packaging waste from landfill or incineration
- Increases post-consumer recycling yields
- Aids the creation of a circular economy for plastics packaging by enabling polyethylene- based barrier packaging to be recycled more effectively
- It empowers converters and brand owners to create packaging with the convenience and features of typical FFS films, multilayered pouches, flow wrappers, and barrier films
- Provides added benefit of recyclability, such as grocery store drop-off programs



Consumers & Society

- The empty pouches can now be resold to scrap dealers and recycled entirely instead of disposing and creating pressure on the environment
- Opportunity to make better use of recycle stream by avoiding landfill
- May Eliminate or reduce costs associated with collecting, packaging and selling scrap for better to almost no value
- Potential to meet sustainability goals at large

Standard Barrier Films



Vishakha's Regain Recyclable Barrier Films



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