



Pharma Packaging Innovation

About Bilcare

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Leading provider
of research based
pharma packaging

- 2018 OPPI Award (10' & '14)
- 2014 C II Innovation Award
- 2014 Frost & Sullivan Award
- 2006 Forbes 500
- 1992 Founded





State-of-the-art research & manufacturing

- Two Pharma Packaging Materials Plants
- 50,000 tons annual capacity
- A company of over 1000 professionals
- State FDA licensed facility
- ISO Class 8 (Class 100000) clean room facilities
- World class SOPs in line with USFDA requirements
- Customized inventory management through 21 CFR Part 11 complaint SAP ECC 6.0

TÜV SÜD audited ISO 9001:2015, ISO 14001:2015, ISO 15378:2017

High-end machinery & facilities

Bilcare plants, located in Pune & Nasik, India, have an excellent capacity to meet global Pharma solutions needs with flexibility in volumes and specifications.

Manufacturing is done in a classified environment under controlled temperature and humidity conditions, conforming to packaging cGMP norms.





Research & Development front & center

Bilcare has a strong research base with core competency in Pharma packaging & Clinical trials research. It is comprised of doctorates & postgrads of Pharmaceuticals & Material Sciences.

- Pre-formulation studies
- Formulation development
- Stability studies
- Analytical research
- Packaging audit services
- Packaging design & development
- Customised packaging innovations

Value system leading the industry

We are committed to service and quality beyond compliances and functional product expectations.

We care deeply about end consumers, the environment, child resistant usability design and **consumer trust**.

These values have resulted in a highly diverse portfolio of solutions that decisively meet our objectives.





Technical know-how formulations & materials

Formulation study

Moisture Vapor Transmission Rate

Temperature & stability

Light sensitivity & gas release

Anti counterfeiting needs

Packaging outcomes

We believe in **excelling through continuous research**.
Formulation know-how, integrated with material sciences is the core of Bilcare's abilities. It has resulted in an environment for manufacturing unique packaging products.

Bilcare
Research



Products Portfolio

slides 9 - 16



Aluminium
Cold formed



PVC / PVdC
Thermo formed



Lidding Foils
CR & graphics



Aluminium Cold formed

A multilayered blister structure provides complete protection against water vapour, gases, light etc.

- High thermal stability
- Highly malleable for deep drawing blister cavities
- Sealable with normal VMCH, water based lacquer -
- & universal lacquer based Aluminium Foil
- Active drug master filed with USFDA (DMF No. 17963)

venusTM → **eliteTM** **ventoTM**

elite is designed for space saving. **vento** is composed of a unique venting structure. These are highly **formable & printable**.



PVC / PVdC Thermo formed

Unique aesthetic solutions with metallic lustre, differential grating patterns or high barrier strength.

- Enhanced barrier over mono PVC film
- Highly thermoformable and machinable
- Non-toxic, pharma grade multilayer film
- Active drug master filed with USFDA (DMF No. 17766)

patina™ **protect™**

patina gives a metallic lustre. **protect** creates unique brand specific patterns.

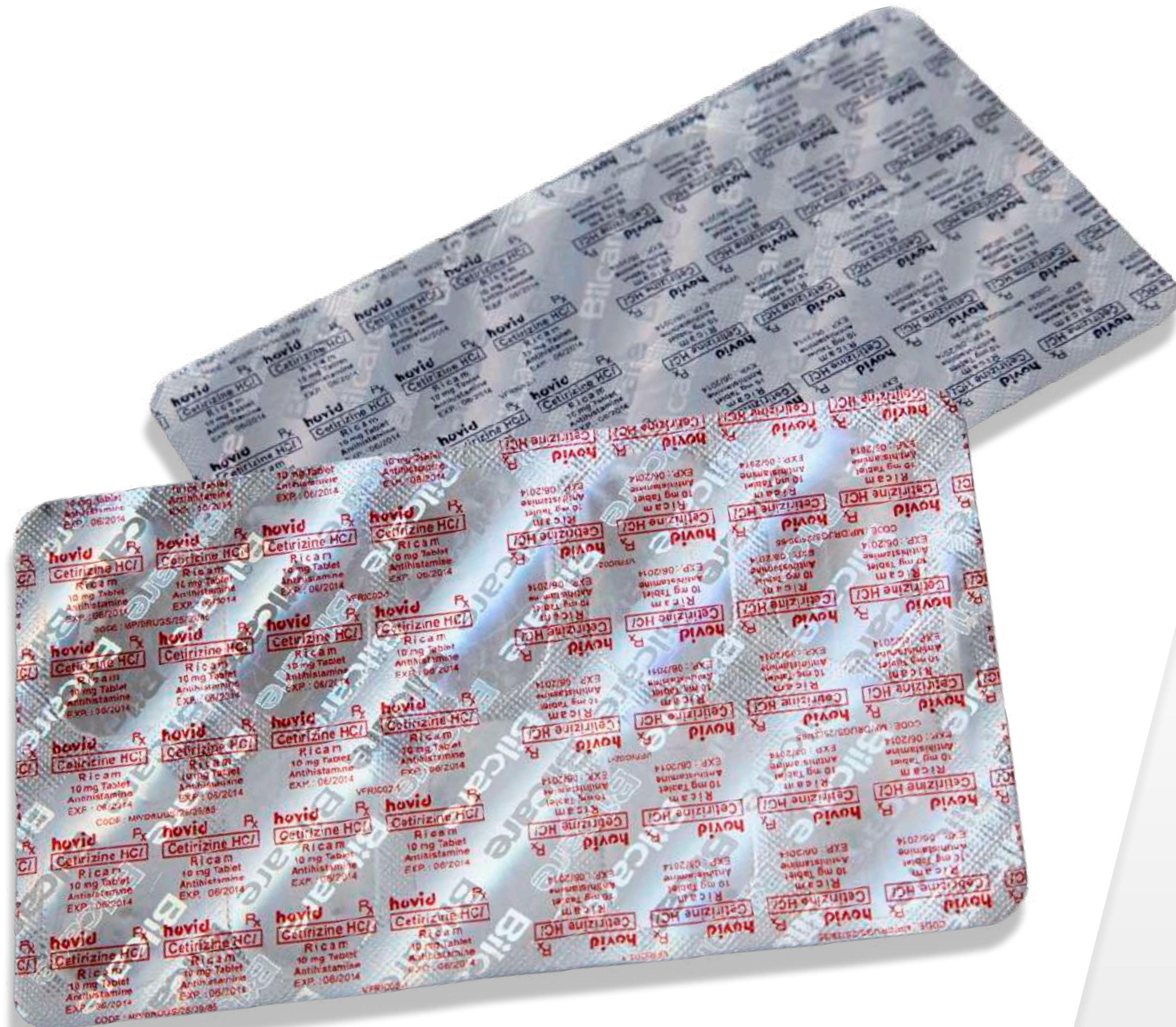
PVC / PVdC Thermo formed

High barrier films suitable for highly sensitive formulations.

- Ultra high barrier films
- Highly thermoformable and machinable
- High barrier against moisture & gases
- Active drug master filed with USFDA (DMF No. 17766)

armourTM aclarTM armlarTM

armour gives additional gas barrier. **aclar** gives high moisture barrier.
armlar provides ultimate barrier against moisture & gases.



Lidding Foils Lacquer coated

Non toxic heat seal Lacquer coated aluminium foil providing strong, airtight seams & closures.

- Excellent sealability with any specified polymer
- High chemical resistance, tasteless & odourless
- High corrosion resistance, thermal conductivity
- Active drug master filed with USFDA (DMF No. 17963)

zeonTM zeonaquaTM zeon+TM

zeon works well for PVC & PVdC. zeonaqua uses water based HSL. zeon+ is created for any specified polymer. Printed or plain options.



Additional
products

crfoilsTM + novaTM
spectraTM secureTM

crfoils including peel, peel & push enable child safety, EN14375 certified by Burford Lab, UK. nova is a paper based lidding substrate. spectra enables cavity side printing. optra is a PVC free cavity side substrate. secure adds safe-guard features like UV print, watermark & micro-print.

Market Trends

- 1 Plain Blister to **Printed**
- 2 Strip to **Alu-pack**
- 3 Plain Foil to **Child Resistant**

Bilcare sees the above trends in Pharma packaging demand worldwide. Companies and customers expect brand refresh, innovations and use of sustainable materials.



Market Trends

- 1 Laminates for single dose & powder
- 2 Extrusion based laminates
- 3 PVC-free packaging

We are seeing an accelerated use of laminates for sachet packaging. Laminate production is shifting from solvent based to extrusion based. At a time when sustainability is most paramount, Bilcare has also developed a PVC-free, low dioxin packaging material.





Innovation Brief

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Pharma Brand Innovation

For 25 years, team Bilcare has been **uniquely** organised to meaningfully enable brand growth through its well formulated innovation process.

Users & brand interfacing, market research, rapid prototyping, and **in-depth knowledge of formulations & material sciences** results in unique packaging solutions that radically pivot a brand's market positioning.

Shaping **Brands**, Caring **Patients**



Seamless convenience leads to loyal usage by patients and caregivers

Convenience

Brand differentiation & recollect is vital among competing brands in developing markets

Communication

Medication adherence strengthens patient health outcomes

Compliance

User friendly yet resisting children's mishap with medication

Child resistant

Anti-counterfeiting features to safeguard leading brands is a must

Counterfeiting

Innovation process technical + 5C design

Bilcare R&D is geared to address the challenges of the 5 Cs viz., Compliance, Counterfeiting, Communication, Convenience and Child Resistant. We partner with pharmaceutical majors to ensure scientific optimization, better shelf life, increased stability of products, ease of distribution and brand protection.

Our R&D focus is reflected in our pursuit of developing patented technologies. The focused initiative across all business activities has resulted in our company filing for Patents, Trademarks and Registered packaging designs filed in various jurisdictions worldwide.

Bilcare
Research

**Pharma
Packaging
Innovation**

Thank You

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