

# A INTEGRATED CARBAPENEMS FACILITY FROM CHEMICAL TO VIALS



#### **COMPANY OVERVIEW:**

- Penem Pharmachemi Pvt. Ltd. is a manufacturing company which is dedicated facility for carbapenems. The company started the manufacturing operations in 2019 & built up a state of art carbapenem facility which is completely integrated from producing technical APIs, its intermediates as well as right till sterile APIs to injectable virus including lyophilization. The company has a short but strong manufacturing record and the plant was inspected and approved by UK MHRA, TGA Australia and was about to be auditedby US FDA & EU before the covid period. The company was recently acquired by Shamrock Pharma Group and is now 100 percent owned by them.
- The new management brings in more accountability, commitment and better upgraded facilities and GMP standards to meet the high quality and regulatory requirements of global markets.
- It has the state-of-the-art facilities, latest technological capabilities and have optimized the chemical processes for all its carbapenem.
- The state-of-the-art facility is designed to carter to all regularity markets including US, EU, CANADA, UKMHRA, PMDA (Japan), KFDA and ROW.
- The facility is fully compliant GMP facility.



#### **BUSINESS STRATEGIES & STRENGTH:**

- It is the largest integrated plant facility which produces from the basic chemical stage to technical carbapenems and then also having integrated sterile and lyophilization facility till vial filing injectables.
- We have a dedicated R&D for carbapenems & fully equipped laboratory for process development, microbiological test and synthesis. We have already filled 16 DMFs for carbapenems & readily available for filing as well. We have filed ANDA out of which two ANDA's are already approved for Meropenem & Imipenem. We are building a dedicated oral carbapenem facility for "FAROPENEM" which is completely starting from the basic compound.







#### **CARBAPENEM: SITE LAYOUT**

Technical Intermediates (Non-Sterile Plant)



APIs & Vial Filling (Sterile Plant)



#### **BAVLA PLANT: AHMEDABAD**

#### **Plant Facilities Details**

Manufacturing capabilities - Carbapenems, Technical, Intermediates, Raw Material, Sterile, APIs, Lyophilization & Injectable Vials.



Capacities: Per Annum Technical : 20 Tons

Sterile APIs : 18 Tons

Sterile vial filling injections : 18 millions

Land Area : **30150 sq. mtr.** Manpower : **130 to 140** No. of Blocks : **12 Nos.**  Operations: 2016 / 2018Manufacturing Capacity: 180 KLManpower: 30 Scientists

Employee / Workers : 120



#### **BAVLA PLANT: MANUFACTURING SITE**

#### **Plant Facilities Details**





#### **CARBAPENEMS - PRODUCT PORTFOLIO:**

| ORAL CARBAPENEMS  | KDMF   | JDMF   |
|---|--------|--------|
| Faropenem Sodium  | UP     | UP     |
| STERILE APIS  | US DMF | EU DMF |
| Meropenem   |        |        |
| Doripenem   | -      | -      |
| Imipenem  |        |        |
| Cilastatin Sodium   |        |        |
| Mixture of Sterile Imipenem, Cilastatin Sodium & Sodium Bicarbonate |        |        |
| Mixture of Sterile Meropenem and Sodium Carbonate                   |        |        |



#### **CARBAPENEMS - PRODUCT PORTFOLIO:**

| TECHNICAL / NON-STERILE            | US DMF  | <b>US DMF</b> | EU DMF | UNDER DEVELOPMENT    |  |
|------------------------------------|---------|---------------|--------|----------------------|--|
| Cilastatin Acid                    |         | *             | *      | CARBAPENEMS          |  |
| Doripenem                          |         | *             | *      | Biapenem             |  |
| Ertapenem                          |         | UP            | UP     | Lenapenem            |  |
| Imipenem                           |         | *             | *      | Panipenem/betamipron |  |
| Meropenem                          |         | UP            | UP     | Sulopenem            |  |
|                                    | 1       | Tebipenem     |        |                      |  |
| STERILE VIALS (FINISHED DOSAG      | DOSSIER | Tomopenem     |        |                      |  |
| Meropenem 500 mg /1000 mg          |         |               |        |                      |  |
| Imipenem + Cilastatin 250 mg + 250 |         |               |        |                      |  |
| Ertapenem 1000 mg                  | UP      |               |        |                      |  |
| Doripenem 250 mg / 500 mg          |         |               | UP     |                      |  |



#### **CARBAPENEM - PRODUCT PORTFOLIO:**

#### **US DMF's Filings**

| Sr. No. | Product Name  | DMF No. |
|---------|---|---------|
| 01.     | Doripenem Crude   | 028210  |
| 02.     | Meropenem Crude   | 025869  |
| 03.     | Imipenem Crude  | 028296  |
| 04.     | Doripenem Sterile   | 028280  |
| 05.     | Meropenem Sterile   | 028279  |
| 06.     | Imipenem Sterile  | 028356  |
| 07.     | Cilastatin Sodium Sterile                                       | 028365  |
| 08.     | Sterile Mix of Imipenem, Cilastatin Sodium & Sodium Bicarbonate | 028381  |
| 09.     | Sterile Mix of Meropenem & Sodium Carbonate                     | 028382  |

#### **ANDA's Approved**

| Sr. No. | Product Name   | ANDAs    |
|---------|--|----------|
| 01.     | Imipenem + Cilastatin 250 + 250mg & 500 + 500 mg<br>(Powder for solution for Injection/Infusion) | Approved |
| 02.     | Meropenem 500 mg & 1000 mg<br>(Powder for solution for Injection/Infusion)                       | Approved |



























































# **THANK YOU**



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