

1. In the technical process, I explained that the **quality checks** start from the **granules or resins**, which are either supplied by **Reliance in India** or imported from **Korea**. These resins are **melted** and passed through different **rollers** to achieve various thicknesses.
2. The process is known as **calendering**, in which **jumbo rolls** are made. First, **PVC** is produced, and then a **PVDC coating** is applied on top. If color is required, it is added during this stage.
3. The **required thickness** is about **250 microns**, which is **more than Alu-Alu foil**, which is around **130 microns**. PVDC is one of the most **cost-effective and durable packaging materials**. It offers a **long shelf life** and performs **better than PVC**. It comes in different **GSMs — 60, 90, 120, and 180**.
4. If someone already manufactures Alu-Alu, it's quite **easy for them to make PVDC**. Anyone experienced in Alu-Alu understands what's required in the market, so they can easily adjust the parameters. The **slitting machine** and **packaging process** are the same for both — both go in **boxes**.
5. PVDC doesn't have a **sticking process**; instead, it uses **calendering** to form PVC, and then the PVDC coating is applied on top.
6. When it comes to **quality tests**, PVDC has **fewer** than Alu-Alu — the **main focus is GSM**.
7. For **customer onboarding**, the time required is **the same as Alu-Alu**. Also, the **customer base is common** — if one product is being supplied, the other can be easily offered too.
8. In the **production process of PVDC**, it starts from **granules**, then **melting**, **calendering**, **making jumbo rolls**, **reducing to the required size**, **packaging**, and finally **dispatch**.
9. Tablets are packed in material that ensures their **stability**.
We always **consider cost**, and since **Alu-Alu** is costlier, if both Alu-Alu and PVDC offer the same **shelf life** (say **36 months**), we prefer PVDC because it's cheaper.
10. Once you start selling **PVDC**, **selling Alu-Alu** becomes easier too. Once you're **onboarded** to a company, you're **automatically approved** for both Alu-Alu and PVDC. There isn't much trouble with PVDC — mainly **rate negotiations**.
11. The **rate of PVDC** is around **₹600–650 per kg**, while **Alu-Alu** is around **₹390 per kg**. PVDC comes in **different grades** depending on GSM — for example, **60 GSM coating** costs less, and as the GSM increases (to **90, 120, or 180**), the rate increases.
12. The **most commonly sold grade** is **90 GSM**, costing around **₹300–350 per kg**.
13. While the **rate** is similar to Alu-Alu, the **consumption differs** — in Alu-Alu, the ratio is about **1:6**, and in PVDC, it's **1:5**. This means for every **1 kg of printed foil**, around **6 kg of Alu-Alu** is used, while only **5 kg of PVDC** is required — saving on **aluminum** and overall **cost**.
14. The **main players** are **Bilcare, ACG, Amartara** (which outsources), **Svam** (also outsources), and **Caprihans** (a quality player). There are also several **small players**.
15. We have around **12–13 distributors**, and no single one can fully supply us because of **rate variations**. **Bilcare and ACG** charge higher rates (₹300–350 for 90 GSM). For higher GSMs like **120–180**, the rate goes up to **₹600–650 per kg**.
16. The **coating** can happen on **one or both sides**. **Inside coating** (the side in contact with the tablet) is a **patented process by Bilcare**. Others manufacture it too, but Bilcare has the expertise.

17. In some formulations, **PVDC is required inside and PVC outside** — this setup presents **sealing integrity challenges**, where the seal sometimes opens within **six months**. Bilcare is a **world leader** in this area, so established pharma firms prefer them.
18. Among Indian players, **ACG** and **Bilcare** are the **quality leaders**, but they are **costlier**. If **Wahren** can deliver **good quality at a lower price**, it can definitely **capture market share**.
19. Our **purchases happen from Delhi**, though I don't coordinate directly with them.
20. As for whether **Alu-Alu is replacing PVDC** — it **will eventually**, but **not immediately**. Alu-Alu offers **more stability**, but PVDC is used in **huge quantities**, and **Alu-Alu packaging machines** are expensive.
21. PVC is also used in **cosmetics**, and to make **PVDC**, you first need a **PVC setup**. So, if you're setting up a **PVDC plant**, a **PVC plant** is already in place.
22. If you're **scaling an old machine**, there's **no problem** as long as the machine is **well-maintained**.
23. For **stabilization**, the time taken is similar — if you start today and have the **expertise**, you can begin **selling within a month**.
24. When any **vendor** enters the **pharma industry** — whether it's **Bilcare** or anyone else — the process is:
first **samples are sent**, then **approval**, and finally **rate negotiation**. This takes about **3–4 months**. Once approved, if **new material** comes in, the process only takes **15–20 days**.
25. If someone is **already selling Alu-Alu** and wants to start **selling PVDC**, it takes just **15–20 days** — there's **no need to visit the facility**, only **sample and quality checks** are done.