

What a soft gel drying tray actually costs over 15 years

A \$10 imported thermoplastic tray looks like a third of the price of a \$30 Chemtech FRP composite tray. Over the life of a drying room it is not. The tray bought once outlasts four replacement cycles of the tray bought again and again.

CHEMTECH FRP · 15 YEARS

\$30,000

1 purchase of 1,000 trays at \$30

IMPORTED · 15 YEARS

\$50,000

5 purchases of 1,000 trays at \$10

DIFFERENCE

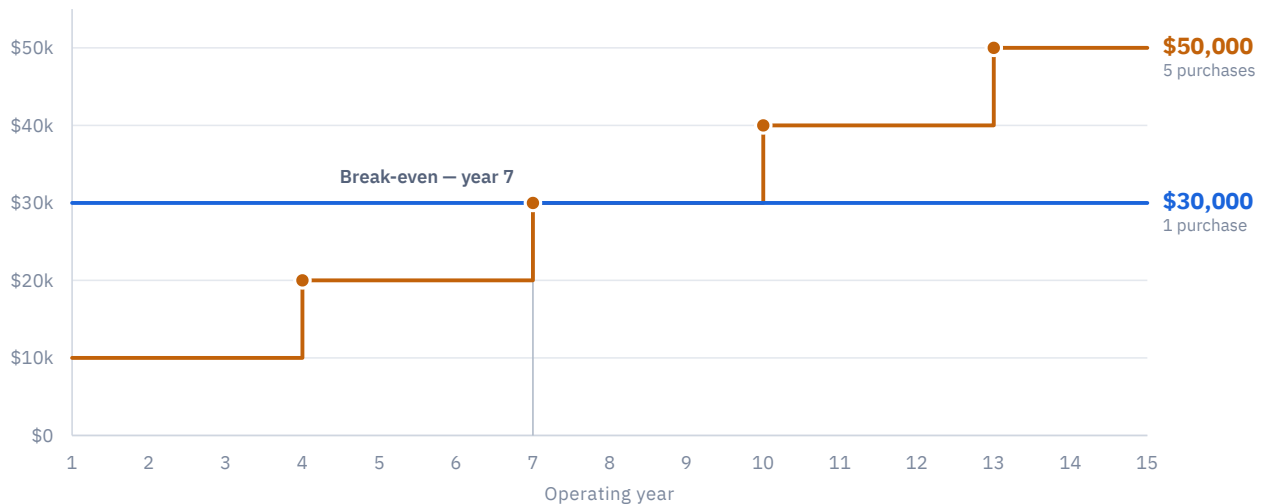
\$20,000

40% less spent on trays

Cumulative spend on trays, 1,000-tray line

The import line crosses into the red in year 7 — and keeps buying.

— Chemtech FRP composite — Imported thermoplastic



Each step on the amber line is a full re-buy of the tray inventory — years 4, 7, 10 and 13. The blue line never steps, because the trays bought in year 1 are still in service in year 15.

The number that matters: cost per tray, per year

Chemtech FRP composite
 \$30 tray, 15-year service life



\$2.00

Imported thermoplastic
 \$10 tray, 3-year service life



\$3.33

Cumulative spend by operating year, 1,000-tray line

OPERATING YEAR	CHEMTECH FRP	IMPORTED	IMPORTED MINUS CHEMTECH	NOTE
1	\$30,000	\$10,000	\$-20,000	Both lines buy their first set
2	\$30,000	\$10,000	\$-20,000	
3	\$30,000	\$10,000	\$-20,000	
4	\$30,000	\$20,000	\$-10,000	Import re-buy
5	\$30,000	\$20,000	\$-10,000	
6	\$30,000	\$20,000	\$-10,000	
7	\$30,000	\$30,000	\$0	Import re-buy — spend now level
8	\$30,000	\$30,000	\$0	
9	\$30,000	\$30,000	\$0	
10	\$30,000	\$40,000	\$10,000	Import re-buy
11	\$30,000	\$40,000	\$10,000	
12	\$30,000	\$40,000	\$10,000	
13	\$30,000	\$50,000	\$20,000	Import re-buy
14	\$30,000	\$50,000	\$20,000	
15	\$30,000	\$50,000	\$20,000	Chemtech trays still in service

A negative figure means the imported trays have cost less so far. From year 7 the sign flips and never comes back.

How this was calculated

- **Tray prices** — \$30 per Chemtech FRP composite tray, \$10 per imported thermoplastic tray. Representative pricing, not a quote.
- **Service life** — Chemtech customers report 15 to 20 years from their FRP trays; this analysis uses the lower figure, 15 years. Imported thermoplastic trays are given **3 years**, the longest life observed; warping, cracking and chipping commonly retire them sooner.
- **Everything else held equal** — tray purchase price only. No freight, duty, changeover labor, scrap or contamination cost is counted on either side, and import prices are assumed never to rise over the 15 years.
- **The arithmetic** — a 1,000-tray line needs 1 purchase of FRP trays and 5 purchases of 3-year import trays to cover 15 operating years ($1 \times \$30,000$ against $5 \times \$10,000$).
- **At 20 years** — the comparison becomes \$30,000 against \$70,000 across 7 import purchases, and the Chemtech tray falls to \$1.50 per tray-year.
- **Sensitivity** — at a 2-year import life the 15-year import spend is \$80,000; at 1 year it is \$150,000.

Every assumption above works in the imported tray's favor.