



CUSTOMER BRIEFING — MAY 2026

FR4 Pricing Update

Drivers behind 2024–2026 cost increases on FR4 material

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PREPARED BY

Atlas Fibre

Customer briefing · MAY 2026

Two compounding cost drivers

FR4 input costs have moved sharply over the past 18 months. The increases stem from two distinct, sequential supply-side events:

01

PRE-HORMUZ

Glass fabric shortage

Tightening E-glass capacity through 2025–2026 lifted woven fiberglass prices well before any geopolitical disruption. Demand from EV, Data Centers, electronics, and wind outpaced new capacity additions.

02

POST-HORMUZ

Epoxy resin shortage

Closure of the Strait of Hormuz disrupted naphtha flows — the upstream feedstock for most epoxy resin. Spot prices spiked and allocations followed across the laminate industry.

Source: [Fenharz — Glass Fabric Shortage 2026](#), [Reuters — Iran war disrupts circuit board supply chain](#)

Glass fabric tightened before any geopolitical shock

Woven E-glass fabric, the structural reinforcement in every FR4 laminate, entered a sustained shortage in 2025 that carried into 2026.

- Demand surge from Data Centers, EV battery, semiconductor packaging, and wind energy markets
- Limited new E-glass furnace capacity — multi-year build cycles
- Weaver lead times extended from 8–10 weeks to 16+ weeks through 2026
- FR4-grade 7628 / 1080 styles among the most allocated SKUs

Source: [Fenharz Industry Report \(2026\)](#)

16+ weeks

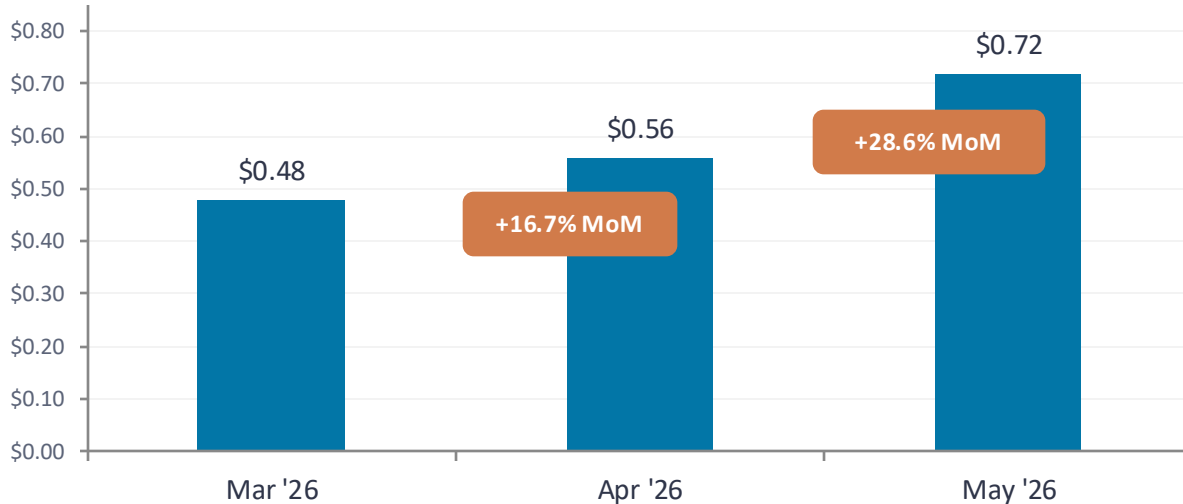
Weaver lead times — up from 8–10 weeks pre-2025

Tight allocation

FR4-grade 7628 and 1080 styles among the most constrained globally — driving fabric prices higher on every PO.

Glass cloth pricing escalated 50% in 60 days

Spot pricing on FR4-grade woven E-glass cloth moved sharply through Q2 2026 as allocation tightened. Atlas' delivered cost rose from \$0.48/kg in March to \$0.72/kg in May, a 50% increase in two months.



Source: [Atlas Fibre internal procurement data \(2026\)](#)

MAR → MAY 2026

+50%

\$0.48 → \$0.72 per kg in 60 days.

PASS-THROUGH SCALE

Glass cloth is 30–40% of FR4 laminate cost; escalation flows directly into landed material cost.

Hormuz closure broke the epoxy resin supply chain



Most epoxy resin manufactured globally relies on naphtha feedstock that transits the Strait of Hormuz. The closure cut spot availability and triggered force-majeure declarations across multiple resin producers.

Resin allocations

Major suppliers placed customers on allocation; spot purchases at significant premium when available.

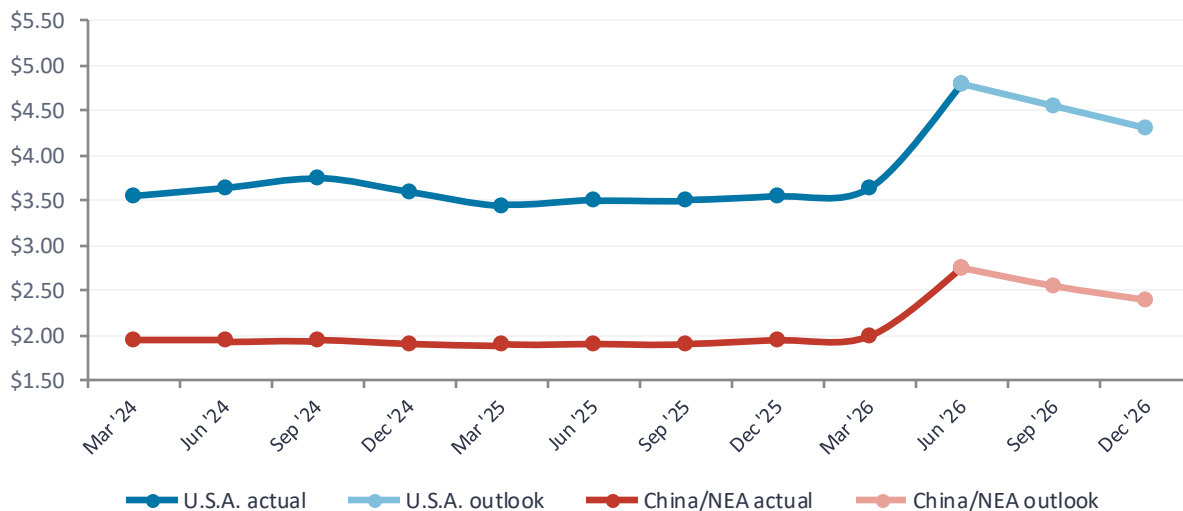
Index spike

Epoxy resin price index moved sharply higher post-closure ; see BusinessAnalytIQ tracker referenced below.

Source: [Reuters \(Apr 2026\)](#),
[BusinessAnalytIQ — Epoxy Resin Index](#)

Epoxy resin price index — USA vs. East Asia

BusinessAnalytIQ tracks the most basic epoxy resin chemistries. Brominated and specialty resins used in FR4 moved more sharply; Atlas Fibre's actual input cost rose ~60–65%.



U.S.A. — TROUGH TO PEAK

+39%

\$3.45 (Mar '25) → \$4.80 (Jun '26) per KG.

BROMINATED FR4 RESINS

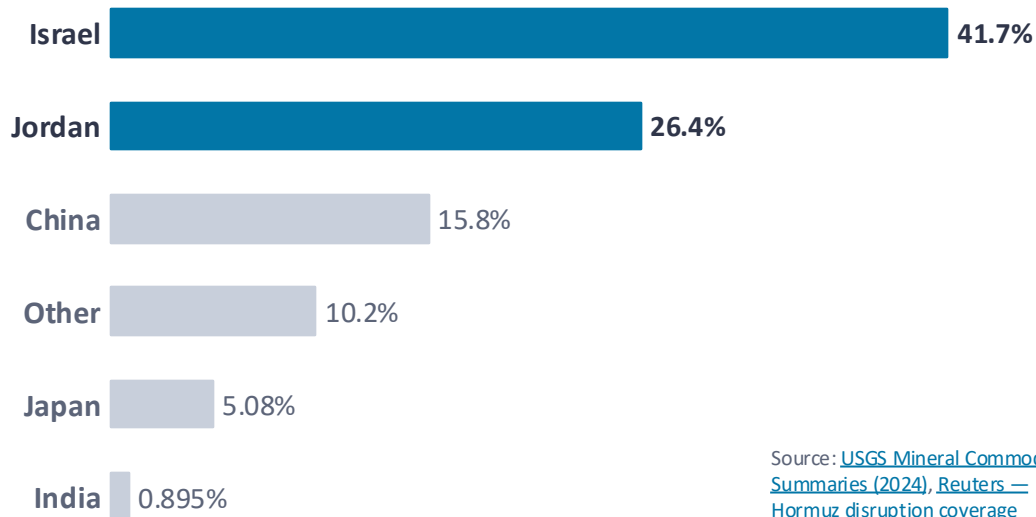
+60–65%

Atlas' actual cost increase on FR4 resin chemistries — specialty grades move further than the basic index.

Source: [BusinessAnalytIQ — Epoxy Resin Index](#)

Bromine supply concentrated in the Hormuz region

Brominated epoxies provide the flame retardancy that defines FR4. Israel and Jordan together account for 68% of global bromine production; both ship through or alongside the Strait of Hormuz, putting brominated resin feedstock under the same geopolitical pressure as base epoxy.



Source: [USGS Mineral Commodity Summaries \(2024\)](#), [Reuters — Hormuz disruption coverage](#)

ISRAEL + JORDAN

68%

of global bromine production — the plurality.

HORMUZ EXPOSURE

Bromine and brominated resin precursors ship through or alongside Hormuz, the same chokepoint already constraining base epoxy.

Demand pressure is rising at the same time supply tightens

On top of the supply-side shocks, durable-goods demand is accelerating. The Gardner Business Index, the leading benchmark for U.S. discrete-parts and durable-goods manufacturing activity, has consistently broken above 50 (expansion) for the first time in three years.

GARDNER BUSINESS INDEX

> 50

Sustained expansion territory

First time in three years — signals broad acceleration across discrete-parts and durable-goods manufacturing.

What this means for FR4

- Order books are filling faster across the entire FR4 industry, not just at Atlas Fibre.
- Capacity that was idle through 2023–2024 is now actively booked.
- Supply tightness compounds: more buyers competing for the same constrained inputs.

Source: [Gardner Intelligence — GBI](#)

Why Atlas FR4 is more exposed to resin volatility

Atlas Fibre FR4 is formulated for easy machining, longer tooling life, and high bond strength, which means less non-functional filler than typical commercial grades. The trade-off: more epoxy per pound of laminate, and direct exposure when epoxy prices move sharply. Density is the tell; heavier sheets carry more filler, lighter sheets carry more resin.

TYPICAL COMMERCIAL FR4

Heavily filled, denser

Higher density

= more filler per pound

- Heavy CaCO_3 and other non-functional fillers bulk out the laminate
- Filler is cheap relative to epoxy — less exposure when resin moves
- Trade-offs: harder on tooling, less consistent machining, lower bond strength

ATLAS FR4

Engineered for machinability

Lower density

= more epoxy, less filler

- Formulated for easy machining, longer tooling life, and high bond strength
- Non-functional fillers minimized — ATH retained only where flame retardancy is required
- Higher resin fraction means the price moves with the epoxy index when it spikes

Higher-grade FR4 carries more of the price move

15–30%

Less exposed

Filled commercial FR4 — CaCO₃ dilutes the resin share

High Resin %

Atlas Fibre FR4 grades

No non-functional fillers — engineered for reliable, easy machining

+27–31%

Cumulative price move

Pure-resin FR4 grades indexed

What this means for grade selection

- Lower-grade filled FR4 (CaCO₃ extender, lower resin fraction) is less exposed to the resin price move, but it also machines less cleanly and varies more part-to-part.
- Atlas Fibre ships higher-grade FR4 engineered without non-functional filler, a consistent resin matrix that delivers reliable, easy machining, tighter dimensional control, and predictable electrical performance.
- The trade-off: the same purity that makes Atlas Fibre FR4 perform predictably also exposes it directly to the epoxy resin index, which is why our grade moves more in % terms than filled commercial laminates.
- For applications where machining yield, surface finish, and electrical reliability matter, the higher cost basis is the engineered cost of the grade, not a temporary premium.

Path forward — partnering through the constraint

WHY WE NEED YOUR FORECAST

Atlas Fibre can only commit to a price on what we can secure resources for. Specialized FR4 grades are produced to specific customer programs — without a commitment, Atlas cannot pre-position raw material against an unknown order.

01

Forecast horizon

Share rolling 12-month FR4 requirements so we can secure resin allocation in advance of each quarter.

02

Order cadence

Move from spot orders to scheduled releases against a blanket. Predictability earns priority in our production queue.

03

Pricing review

Revisit pricing on a quarterly basis tied to the published epoxy resin index — transparent pass-through both directions.

04

Joint communication

We will continue to update customers on resin index movements and any allocation changes as soon as they are confirmed.



THANK YOU

Let's plan this through together.

Atlas Fibre is committed to supporting our customers through the current FR4 supply environment with the most accurate price and availability information we can provide.

CONTACT

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