September 13, 2026 09:02 PM GMT

Grace Fabric Technology Co. Ltd. | Asia Pacific

AI Demand, Tight Supply to Boost Earnings; Initiate at OW

High-end glass fabric is in short supply, as AI-driven demand growth outpaces supply. We believe Grace Fabric is well positioned to expand capacity faster than peers, allowing it to gain market share and benefit from continued price hikes as supply remains tight, 2026-28.

Beneficiary of high-end PCB material upgrades: Grace Fabric Technology is a leading supplier of high-end electronic-grade glass fiber fabric, a key reinforcement material for printed circuit boards (PCB), copper-clad laminates (CCL), and advanced semiconductor packaging substrates. Supply growth is constrained by weaving-machine bottlenecks, limited raw materials, long certification cycles, and high customer stickiness. We expect the glass-fabric shortage to worsen in 2027, with a 40% deficit, before easing but remaining tight in 2028. Positioned upstream in the electronics supply chain, Grace Fabric Technology should benefit from: (1) structural demand growth from AI servers and advanced packaging, (2) supply shortages in high-end glass fiber fabrics, and (3) China's localization push in PCB materials.

Strong technical base and domestic substitution potential: With proven mass production in ultra-thin, extremely thin, high-performance low-Dk/CTE, and quartz fabrics, Grace Fabric Technology is among the few domestic suppliers able to consistently serve mid-range to high-end CCL customers, gaining share as Japanese and Taiwanese incumbents struggle to meet AI-driven demand.

Capacity ramp-up to unlock earnings leverage: Product mix upgrades and capacity expansion should help capture high-end share. As high-performance electronic fabric capacity ramps up, the mix should shift toward higher value-added products, supporting earnings leverage in an industry recovery.

Valuation: We expect medium-term earnings growth from volume expansion and mix improvement, though margins remain sensitive to utilization and PCB-material pricing cycles. We initiate at Overweight with a Rmb170/sh price target, derived from 45x 2028e P/E, or 0.9x 2028e PEG. Our target P/E multiple is above Grace Fabric Technology's average P/E of 38.4x since 2025, when its product mix began to shift toward higher-value offerings. We believe the valuation premium is reasonable, as it reflects the company's strong fundamentals, including its higher-end product mix, ongoing capacity expansion, and potential for ASP and margin growth.

Key downside risks: Weaker-than-expected demand amid global AI investment slowdown, intensified industry competition with more market entrants, rising raw material prices, and execution risks resulting in slower-than-expected capacity release.

MORGAN STANLEY ASIA LIMITED+

Rachel L Zhang
Equity Analyst
Rachel.Zhang@morganstanley.com +852 2239-1520

Cynthia Tang
Research Associate
Cynthia.Tang@morganstanley.com +852 3963-4360

Hannah Yang, CFA
Equity Analyst
Hannah.Yang1@morganstanley.com +852 2239-7079

Chris Jiang
Equity Analyst
Chris.Jiang@morganstanley.com +852 3963-1593

Lucas Liu
Research Associate
Lucas.Liu@morganstanley.com +852 3963-1135

Grace Fabric Technology Co. Ltd. (603256.SS, 603256 CH)

Greater China Materials | China

Stock Rating	**Overweight**
Industry View	**Attractive**
Price target	Rmb170.00
Up/downside to price target (%)	31
Shr price, close (Sep 11, 2026)	Rmb129.80
52-Week Range	Rmb304.00-28.00
Sh out, dil, curr (mn)	880
Mkt cap, curr (mn)	Rmb114,188.6
EV, curr (mn)	Rmb115,503.1
Avg daily trading value (mn)	Rmb2,208

Fiscal Year Ending	12/25	12/26e	12/27e	12/28e
EPS (Rmb)**	0.23	1.59	2.54	3.80
EPS (Rmb)§	-	1.03	1.90	4.47
Revenue, net (Rmb mn)	1,171.0	5,605.8	8,717.8	11,860.7
EBITDA (Rmb mn)	364.8	1,803.9	2,804.5	4,115.7
ModelWare net inc (Rmb mn)	201.9	1,394.5	2,238.4	3,345.9
P/E	160.4	81.9	51.0	34.1
P/BV	19.6	38.4	22.7	14.2
RNOA (%)	10.2	48.0	45.0	51.3
ROE (%)	13.9	84.5	75.2	66.5
EV/EBITDA	92.4	64.4	41.3	27.7
Div yld (%)	0.1	0.1	0.2	0.3
FCF yld ratio (%)**	(1.6)	0.0	1.0	2.1
Leverage (EOP) (%)	52.7	31.9	(0.6)	(25.7)

Unless otherwise noted, all metrics are based on Morgan Stanley ModelWare framework
** = Based on consensus methodology
§ = Consensus data is provided by Refinitiv Estimates
e = Morgan Stanley Research estimates

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For analyst certification and other important disclosures, refer to the Disclosure Section, located at the end of this report.

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Financial Summary

Exhibit 1: Grace Fabric Technology: Financial summary

Grace Fabric (603256.SS)

Financial summary

Key Drivers	2024	2025	2026E	2027E	2028E
Production volumes (mn m)	220	227	193	236	301
Blended Glass Fiber ASP (Rmb/m)	3.74	5.32	27.72	35.48	38.16
Blended Glass Fiber Unit cost (Rmb/m)	(3.02)	(3.40)	(13.44)	(16.38)	(17.00)
Blended Glass Fiber GP /ton (Rmb/m)	0.71	1.92	14.28	19.10	21.16
Income Statement (Rmb mn)	**2024**	**2025**	**2026E**	**2027E**	**2028E**
Net Sales	835	1,171	5,606	8,718	11,861
Gross Profit	145	417	2,416	3,783	5,432
EBITDA	161	369	1,805	2,806	4,117
Consensus EBITDA	381	381	1,426	2,433	3,819
Diff. to Consensus EBITDA (%)	(58)	(3)	27	15	8
EBIT	50	259	1,675	2,668	3,971
Pre-tax Profit	20	225	1,641	2,633	3,936
Net Profit *(before EI)*	23	202	1,395	2,238	3,346
EPS (Rmb)	**0.03**	**0.23**	**1.59**	**2.54**	**3.80**
DPS (Rmb)	0.00	0.07	0.08	0.20	0.38
Cash Flow Statement (Rmb mn)	**2024**	**2025**	**2026E**	**2027E**	**2028E**
Operating Cash Flow	**179**	**294**	**232**	**1,417**	**2,644**
Capex	(34)	(817)	(209)	(222)	(235)
FCF	**146**	**(523)**	**23**	**1,195**	**2,409**
Balance Sheet (Rmb mn)	**2024**	**2025**	**2026E**	**2027E**	**2028E**
Cash & Equivalents	287	247	166	1,147	3,187
Receivables	368	549	2,273	3,535	4,647
Inventory	176	195	786	1,217	1,585
Total Assets	**2,509**	**3,283**	**5,596**	**8,354**	**11,962**
Payables (ST and LT)	117	451	1,439	2,138	2,735
Borrowings	849	1,082	1,082	1,082	1,082
Total Liabilities	**1,059**	**1,633**	**2,621**	**3,320**	**3,917**
Shareholders Equity	1,450	1,650	2,975	5,034	8,045
Total Liabilities and Equity	**2,509**	**3,283**	**5,596**	**8,354**	**11,962**
Per Share Date (Rmb)	**2024**	**2025**	**2026E**	**2027E**	**2028E**
EPS in Rmb	0.03	0.23	1.59	2.54	3.80
Consensus EPS	0.23	0.23	1.14	2.19	3.51
Diff. to Consensus EPS (%)	-88%	2%	39%	16%	8%
DPS	0.00	0.07	0.08	0.20	0.38
BVPS	1.6	1.9	3.4	5.7	9.1

Profitability Ratios %	2024	2025	2026E	2027E	2028E
ROE	2%	13%	60%	56%	51%
EBITDA Margin	19%	32%	32%	32%	35%
EBIT Margin	6%	22%	30%	31%	33%
Pre-tax Profit Margin	2%	19%	29%	30%	33%
Net Profit Margin	3%	17%	25%	26%	28%
Net Debt / Equity %	39%	51%	31%	-1%	-26%
Interest Cover (EBITDA) (x)	4.63	12.02	52.44	81.50	119.58
Working Capital % of Sales	51%	25%	29%	30%	29%
Days Sales AR outstanding	157	161	140	140	135
Days in Inventory	93	94	90	90	90
Days Payable outstanding	(32)	(46)	(48)	(48)	(48)
Cash Conversion	218	209	182	182	177
Valuation Multiples (x)	**2024**	**2025**	**2026E**	**2027E**	**2028E**
P/E	322.2	160.4	81.4 e	50.7 e	33.9 e
P/BV	5.1	19.6	38.2 e	22.6 e	14.1 e
EV/Sales	8	17	20	13	9
EV/EBITDA	44	53	62	39	26
FCF Yield %	2%	-3%	0%	1%	2%
Dividend Yield %	0.0%	0.3%	0.1%	0.2%	0.3%
EV/EBITDA Analysis (Rmb mn)	**2024**	**2025**	**2026E**	**2027E**	**2028E**
Average Stock price	7.4	21.1	125.7	125.7	125.7
Eq Shares outstanding (in mn)	880	880	880	880	880
Equity Value	6,476	18,578	110,544	110,544	110,544
Net Debt	562	835	916	(65)	(2,105)
Minority Interest	0	0	0	0	0
Enterprise Value	7,038	19,413	111,460	110,478	108,439
EBITDA	161	369	1,805	2,806	4,117
EV/EBITDA	43.6	52.6	61.7	39.4	26.3
Quarterly Financials (Rmb mn)		**1Q26**	**2Q26e**	**3Q26e**	**4Q26e**
Revenue		442	606	1,417	3,141
GP		246	376	586	1,209
EBIT		173	277	391	823
Net Income		140	239	329	687
EPS (Rmb)		0.16	0.27	0.37	0.78

Source: Company data, Morgan Stanley Research. e= Morgan Stanley Research estimates.

Risk Reward – Grace Fabric Technology Co. Ltd. (603256.SS)

High-end Glass Fabric Producer Riding the AI Wave

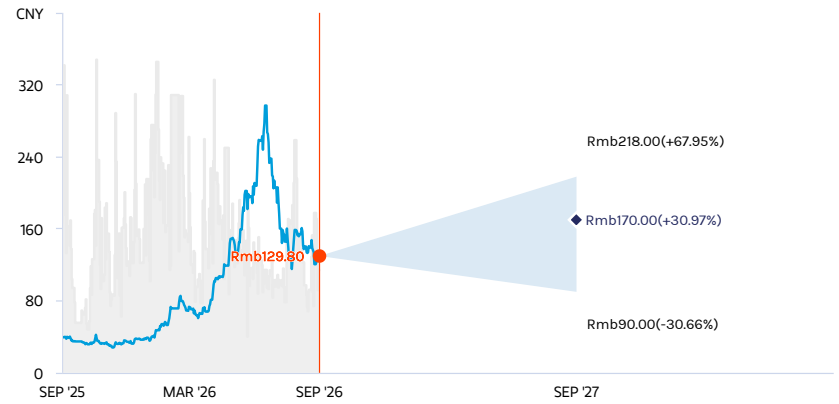
PRICE TARGET Rmb170.00

Base case, derived from 45x 2028e P/E, or 0.9x 2028e PEG. Our target P/E multiple is above Grace Fabric Technology's average P/E of 38.4x since 2025, when its product mix began to shift toward higher-value offerings. We believe the valuation premium is reasonable, as it reflects the company's strong fundamentals, including its higher-end product mix, ongoing capacity expansion, and potential for ASP and margin growth.

OVERWEIGHT THESIS

We rate the stock OW relative to our coverage because:
- it is a beneficiary of high-end PCB material upgrading;
- it has a strong technical foundation with clear domestic substitution potential;
- its new capacity ramp-up should unlock earnings leverage.

RISK REWARD CHART



Key: Historical Stock Performance Current Stock Price Price Target

Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Pricing Power: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE Rmb218.00

Implies 57x 2028e P/E

We assume higher-than-expected demand for glass fiber fabric against the backdrop of solid investment for AI servers and data centers, which has lent support to further glass fiber fabric price hikes. We assign sales volume forecasts for 2026-28 of 214/263/334 million meters. We assign glass fiber fabric price forecasts for 2026-28 of Rmb28.0/36.4/39.9 per meter. We estimate Grace Fabric Technology's unit COGS for 2026-28 to arrive at Rmb13.0/16.1/17.1 per meter.

BASE CASE Rmb170.00

Implies 45x 2028e P/E

We expect a still robust investment cycle for AI servers and data centers, which has lent support to glass fiber fabric hikes. We assign sales volume forecasts for 2026-28 of 193/236/301 million meters. We assign average glass fiber fabric price forecasts for 2026-28 of Rmb27.7/35.5/38.2 per meter. We estimate Grace Fabric Technology's unit COGS for 2026-28 to arrive at Rmb13.4/16.4/17.0 per meter.

BEAR CASE Rmb90.00

Implies 24x 2028e P/E

We assume weaker glass fiber fabric prices amid slower-than-expected investments for AI servers and data centers. We assign sales volume forecasts for 2026-28 of 173/210/269 million meters. We assign glass fiber fabric price forecasts for 2026-28 of Rmb27.5/34.6/36.5 per meter. We estimate Grace Fabric Technology's unit COGS for 2026-28 to arrive at Rmb13.9/16.6/17.1 per meter.

Risk Reward – Grace Fabric Technology Co. Ltd. (603256.SS)

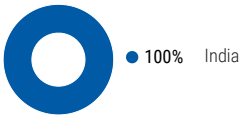
KEY EARNINGS INPUTS

Drivers	2025	2026e	2027e	2028e
EBITDA margin (%)	0.3	0.3	0.3	0.3
Carbon Fiber ASP (Rmb)	5	28	35	38
Carbon Fiber cost/t (Rmb)	(3)	(13)	(16)	(17)

INVESTMENT DRIVERS

- Expanding market share through an increase in sales volume driven by its capacity expansion
- Better-than-expected demand from downstream industries
- Further cost savings through upstream expansion

GLOBAL REVENUE EXPOSURE



● 100% India

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

5/5 **MOST** 3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- Better-than-expected demand riding AI wave
- Increased market concentration supported by technical moat
- Decreasing raw material prices
- Quicker-than-expected capacity release

RISKS TO DOWNSIDE

- Weaker-than-expected demand amid global AI investment slowdown
- Intensified industry competition with more market entrants
- Rising raw material prices
- Execution risks result in slower-than-expected capacity release

MS ESTIMATES VS. CONSENSUS

FY 2026e

Sales / Revenue (Rmb, mn)
◆ 5,605.8
Note: There are not sufficient brokers supplying consensus data for this metric

EBITDA (Rmb, mn)
◆ 1,804
Note: There are not sufficient brokers supplying consensus data for this metric

Net income (Rmb, mn)
◆ 1,395
Note: There are not sufficient brokers supplying consensus data for this metric

EPS (Rmb)
◆ 1.6
Note: There are not sufficient brokers supplying consensus data for this metric

◆ Mean ◆ Morgan Stanley Estimates

Source: Refinitiv, Morgan Stanley Research

Investment Summary

We initiate coverage on Grace Fabric Technology with an Overweight rating, and a price target of Rmb170/sh. We hold a positive long-term view, supported by its leading domestic position in electronic-grade fiberglass fabric, exposure to high-end PCB material upgrading, and clear domestic substitution tailwinds.

Why now? The high-end glass fabric shortage is likely to intensify in 2027, in our view, as demand growth continues to outpace industry capacity expansion. This should support further price hikes and benefit Grace Fabric Technology's earnings growth. The stock has corrected alongside the broader AI supply chain and following the lock-up expiration of shares from its previous placement on September 5. After declining ~60% from its late-June peak, we believe the current valuation presents an attractive entry point for investors.

Structural beneficiary of high-end PCB material upgrading: Grace Fabric Technology is a China-based company mainly engaged in the research, development, production and sale of electronic-grade glass fiber fabric, a key reinforcement material used in printed circuit boards (PCB), copper-clad laminates (CCL), and advanced semiconductor packaging substrates. The company is currently transitioning from a traditional electronic fabric manufacturer into a specialty electronic materials supplier. Unlike low-end glass fiber fabric, which is highly commoditized and cyclical, high-end electronic fabric is increasingly defined by electrical performance, dimensional stability, and reliability – attributes that are becoming mission-critical in next-generation PCB applications. We note that Grace Fabric Technology's technical expertise supports its solid long-term order visibility, as its orders for low-CTE fabric are already secured for the next 3-5 years. We expect the structural demand growth from AI servers and advanced packaging, supply shortages in high-end glass fiber fabrics, and China's localization push in PCB materials to lend support to Grace Fabric Technology's growth.

Strong technical foundation with clear domestic substitution potential: Grace Fabric Technology operates in one of the highest-barrier segments of the PCB materials value chain. As downstream demand shifts toward high-frequency, high-speed, and high-reliability PCBs, the company's focus on ultra-thin fabric, Low-Dk/Df fabric, Low-CTE fabric, and quartz fabric (Q-fabric) positions it well to capture incremental value as industry standards rise. In particular, Grace Fabric Technology has outperformed the industry average on yield control capability, steadily delivering over 90% yield for Low-DK Generation 1 products, and 85% for Low-DK Generation 2 and Q-fabric. The company is also among the few domestic suppliers capable of stable delivery to midrange to high-end CCL customers, steadily taking market share that Japanese and Taiwanese incumbents cannot meet due to fast-growing demand from AI. Upon the full localization of core specialty yarn production, Grace Fabric Technology has minimized exposure to overseas equipment restrictions, supporting faster capacity expansion compared to overseas peers reliant on US-sourced components. Also, Grace Fabric Technology is well positioned to capture the near-term market opportunities; its technical choice of crucible process enables a rapid ramp-up of specialty yarn production, delivering products within only four months from equipment procurement.

New capacity ramp-up to unlock earnings leverage: Grace Fabric Technology's ongoing product mix upgrade and capacity expansion helps to capture high-end market share. As high-performance electronic fabric capacity gradually ramps up, the product mix continues to shift toward higher value-added products, providing significant earnings leverage during an industry recovery cycle. This year, Grace Fabric Technology has proactively reallocated the capacity of its existing 1,200 weaving machines toward higher-margin specialty electronic fabrics, resulting in a 16ppt decline in revenue contribution from lower-margin thick- and thin-fabric segments. Indeed, in the subsegment of ultra-thin e-glass fabrics, Grace Fabric Technology has achieved a dominant market position, with c.36.7% ultra thin fabric market share and 13.3% super thin fabric market share in 2025 in terms of revenue, according to Frost & Sullivan. We expect Grace Fabric Technology's earnings growth over the next 2-3 years to be driven primarily by (1) volume increases in high-end fabric categories, (2) product mix shift towards ultra-thin and specialty products, (3) cost optimization from upstream yarn integration; and 4) operating leverage as utilization improves.

Risks that could help support the business include stronger-than-expected downstream PCB demand against the backdrop of solid capex spending schedules of hyperscalers, declining raw material prices, and speedy capacity ramp-up. **Risks that could hamper the business include** weaker-than-expected PCB demand amid any slowdown in AI expenditures, rising raw material prices, and slower-than-expected capacity releases.

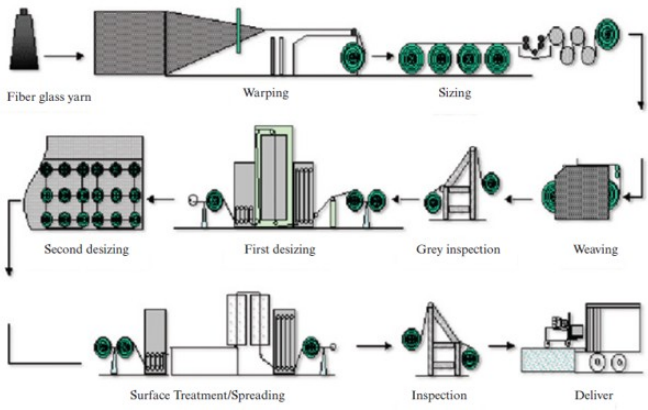
Valuation: We believe Grace Fabric Technology should therefore be viewed as a technology-driven electronic materials supplier and assessed against specialty PCB materials peers, rather than commodity glass fiber producers, considering its near-term earnings remain exposed to PCB industry cyclicality. We initiate at OW with a price target of Rmb170/sh, derived from 45x 2028e P/E, or 0.9x 2028e PEG. Our target P/E multiple is above Grace Fabric Technology's average P/E of 38.4x since 2025, when its product mix began to shift toward higher-value offerings. We believe the valuation premium is reasonable, as it reflects the company's strong fundamentals, including its higher-end product mix, ongoing capacity expansion, and potential for ASP and margin growth.

Investment Positives

High Technical and Process Barriers

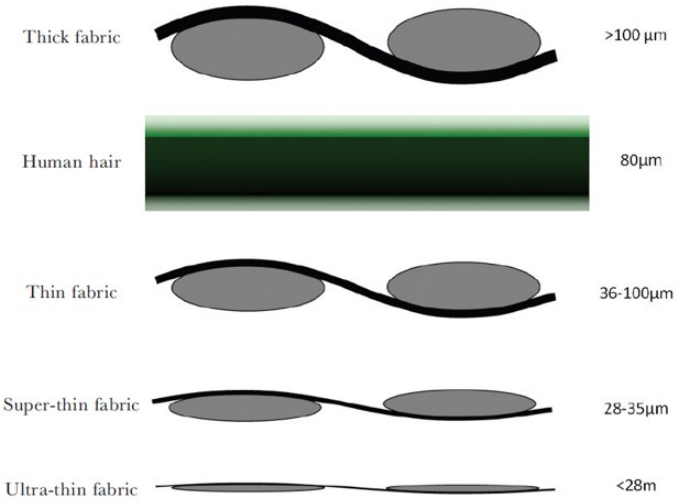
High-end electronic fiberglass fabric is not a conventional textile product, but a highly engineered functional material with significant technical and process barriers across yarn production, weaving, surface treatment and quality control. Special-purpose electronic fabric requires customized design across glass fiber materials, yarn structures and weaving processes to achieve demanding characteristics, such as low dielectric loss, low thermal expansion, high uniformity and high reliability. These requirements become increasingly stringent as electronic fabric moves toward thinner specifications and more advanced applications, such as AI servers, high-performance computing, high-end communications and advanced IC packaging substrates. Throughout the years, Grace Fabric Technology has maintained a commitment to continuous technology advancements and has thus established comprehensive capabilities across critical process stages, including ultra-fine and super-fine yarn compatibility, high-stability weaving, advanced opening and surface treatment, and strict micro-impurity control. In 2023, 2024, and 2025, the company's research and development expenses accounted for 5.1%, 5.2%, and 5.4% of its total revenue, respectively, the second highest among its global and domestic peers (Exhibit 5).

Exhibit 2: Production processes of electronic fabric products



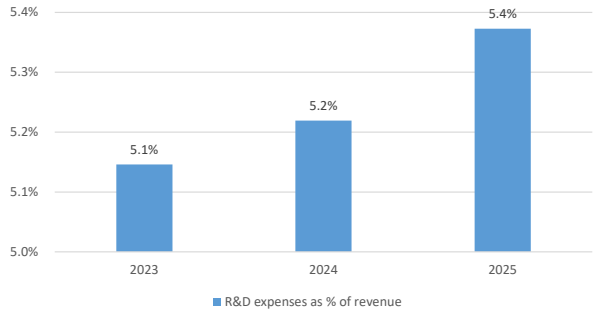
Source: Company filings.

Exhibit 3: General-purpose vs special-purpose electronic fabric



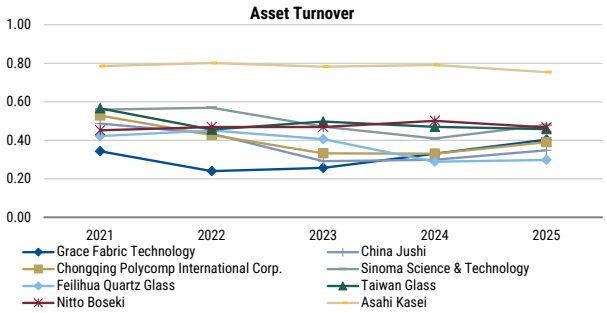
Source: Company filings.

Exhibit 4: Grace Fabric Technology places a strong emphasis on R&D capabilities



Source: Company filings, Morgan Stanley Research.

Exhibit 5: Grace Fabric Technology has the second-highest R&D spending among its peers



Source: Company filings, FactSet, Morgan Stanley Research.

Ultra-fine yarn capability represents a fundamental upstream barrier. As fabric becomes thinner, manufacturers must work with increasingly fine glass fibers while maintaining tight control over fiber drawing, yarn consistency and mechanical properties. Grace Fabric Technology has achieved electronic yarn with a minimum filament diameter of approximately 3 microns and linear density of only 0.77 TEX, alongside electronic fabric as thin as 8 microns – specifications that represent the world's finest electronic yarn and thinnest electronic fabric. Indeed, Grace Fabric Technology is one of only two manufacturers, globally, capable of producing to such specifications.

The difficulty compounds at the weaving stage. Ultra-fine and super-fine yarns are inherently more difficult to process consistently, requiring precise tension control and weaving accuracy to minimize filament breakage and maintain fabric uniformity. Grace Fabric Technology utilizes high-speed air-jet looms and optimizes the process parameters of these looms to weave special-purpose electronic fabrics, delivering high weaving efficiency and excellent surface quality. At the same time, a weft yarn quality inspection system is also in place to automatically reject defective weft yarn with broken filaments. This prevents flawed yarn from being woven into the fabric, reducing surface defects and effectively enhancing fabric quality.

Opening and surface-treatment technologies constitute another important layer of process expertise. These processes affect the interaction between fiberglass fabric and resin and, consequently, the uniformity and reliability of downstream laminates and PCBs. Grace Fabric Technology's electronic-grade glass desizing technology uses continuous vertical desizing furnaces and sealed smoldering furnaces, which can effectively reduce organic residue, while saving energy and reducing emissions. Further down the production chain, Grace Fabric Technology treats fabric surfaces with a silane coupling agent to enhance interfacial strength with resin, ensuring heat resistance and anti-CAF performance for PCBs and semiconductor substrates. Large imported immersion machines are used at this stage to achieve high finishing efficiency and precise application agent.

Quality and impurity control further raise the qualification thresl applications. Advanced electronic fabrics ultimately serve high-valu applications where dimensional stability, signal integrity and reliabili capabilities form a system-level barrier that is difficult to replicate a handful of suppliers globally can serve the high-end market reliably

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High Customer Certification and Switching Costs

Electronic fiberglass fabric is a critical foundational material for PCBs that directly influences end-product performance, quality and stability, and also a high-certification, long-cycle material. CCL manufacturers and downstream electronics OEMs typically conduct extensive evaluation and testing of suppliers over an extended period before establishing partnerships, and, once qualified, suppliers are rarely replaced due to risks related to yield, reliability, and end-product performance.

Grace Fabric Technology's customer base includes leading global CCL manufacturers, such as Panasonic, Doosan Electronics, Elite Material Co., Ltd, Taiwan Union Technology Corporation, ITEQ Corporation, Shengyi Technology and Nanya New Material Technology, as well as Resonac and LG Chem, which are among the world's leading high-end IC packaging substrate manufacturers. The company is deeply involved in new material introductions and next-generation PCB upgrades – indeed, Grace Fabric Technology has maintained partnerships with all of its five largest customers for over ten years. This embedded position creates high customer stickiness and gives Grace Fabric Technology a structural advantage in launching new products. At the current stage, Grace Fabric Technology has entered into strategic cooperation arrangements with downstream customers in the low-Dk/Df and low-CTE fabric segments. Its quartz fabric products have been certified by downstream customers as well, and, with capacity deployment already underway, the company is well positioned to rapidly respond to growing customer demand as the quartz fabric market ramps up.

Recently, to address potential supply shortages and ensure stable supply, four of its end-customers, who are leading global CPU, GPU, and PCB companies, entered into capacity supply agreements or term sheets with Grace Fabric Technology, under which such customers agreed to pay refundable deposits to lock in production capacity for special-purpose electronic fabric products for a period of approximately two to three years.

Vertical Integration Enhancing Cost and Supply Security

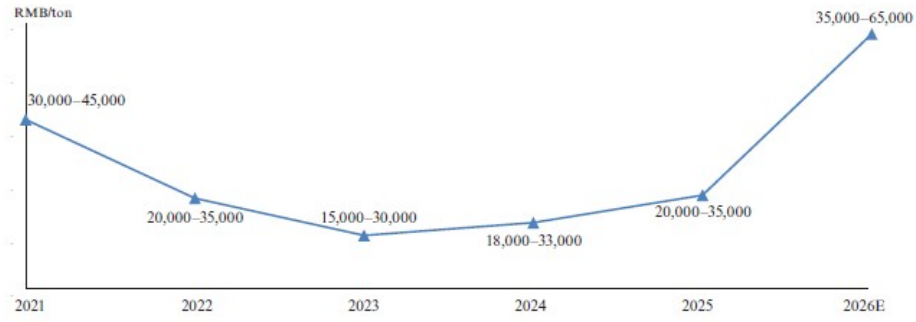
Through its subsidiary operations and production base in Huangshi, Grace Fabric Technology has strategically extended upstream into high-end electronic fiberglass yarn, strengthening its control over one of the most critical inputs in electronic fabric manufacturing. This yarn-fabric integration creates two principal advantages: greater supply security, particularly for scarce ultra-fine and specialty yarn specifications, and improved cost resilience, by reducing exposure to fluctuations in externally sourced yarn prices.

The strategic importance of upstream integration is amplified by the high contribution of electronic yarn to the overall cost structure of electronic fabric. Electronic yarn typically represents approximately 50%–75% of total electronic fabric production costs, with the proportion generally higher for higher-performance products such as super-thin and ultra-thin fabrics, given their more stringent requirements for filament fineness, material consistency and thickness control. As a result, access to stable, high-quality yarn supply can have a impact on both production continuity and profitability, marking the yarn-fabric integration an important long-term competitive advantage, particularly for manufacturers positioned toward the high-end of the market.

Grace Fabric Technology is further deepening this integration. Currently, the company is establishing new special-purpose electronic yarn production lines at its Huangshi production base, with approximately 1,254 tonnes of annual designed capacity, which is expected to be prioritized for the in-house production of low-CTE electronic fabric. The production-line setup and capacity ramp-up are targeted for completion in 2027. This expansion should increase the company's self-sufficiency in strategically important specialty yarn, and reinforce its ability to support growth in advanced electronic-fabric products.

The value of this integration could become increasingly apparent in an environment of rising electronic yarn prices. D450 electronic yarn, a key raw material used in thin general-purpose electronic fabric, has already experienced a recovery from the industry downturn. According to Frost & Sullivan, D450 yarn prices averaged approximately Rmb18,000–33,000/tonne in 2024, increasing to approximately Rmb20,000–35,000/tonne in 2025, and forecast to rise further, to approximately Rmb35,000–65,000/tonne in 2026. Against this backdrop, greater internal yarn supply can partially insulate Grace Fabric Technology from external procurement inflation and supply tightness.

Exhibit 6: Price analysis of D450 electronic yarn



Source: Frost & Sullivan.

Importantly, the benefit of vertical integration extends beyond simple input-cost savings. As AI servers, high-performance computing and advanced communications drive demand for thinner and higher-performance electronic fabrics, the corresponding requirements for ultra-fine, low-Dk/Df and low-CTE yarn are also becoming increasingly stringent. Control over both yarn and fabric manufacturing allows Grace Fabric Technology to coordinate material specifications and downstream process parameters, secure critical raw material availability and capture a greater share of the value chain.

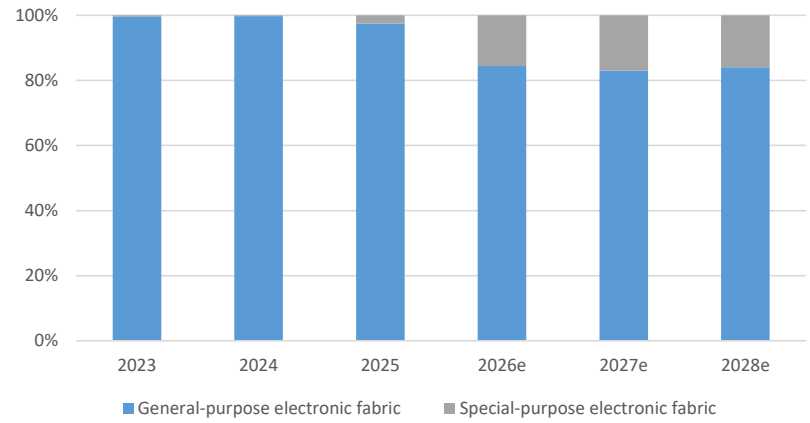
Taken together, Grace Fabric Technology's increasing electronic-yarn self-sufficiency represents a structural enhancement to its economic moat. In a scenario where AI-driven demand tightens the supply-demand balance and raises prices for high-end electronic yarn, vertically integrated manufacturers should be comparatively better positioned to secure supply, smooth input-cost volatility and protect margins, while less-integrated competitors remain more exposed to external yarn availability and pricing.

Capacity Expansion and Product Mix Upgrade Unlock the Next Leg of Growth

Historically, Grace Fabric Technology has operated at high levels of capacity utilization, suggesting that production capacity – rather than a lack of underlying demand – has increasingly represented a constraint on near-term growth. This is particularly relevant for

high-end electronic fiberglass fabric, where capacity cannot be added simply by installing incremental weaving equipment: new production lines require specialized equipment, process optimization, customer qualification and a gradual production ramp-up. As a series of new projects and high-end production lines come on stream, Grace Fabric Technology is therefore entering a new growth phase in which incremental capacity should unlock volume growth while simultaneously facilitating further product-mix upgrading. In terms of product shipments, we expect its special-purpose electronic fabric leg to reach c.16% of its annual total shipments by 2028, compared to just 2.6% in 2025 (Exhibit 7).

Exhibit 7: Grace Fabric Technology's ongoing product-mix upgrading



Source: Company filings, Morgan Stanley Research. e=Morgan Stanley Research estimates.

The most significant step-up in Grace Fabric Technology's longer-term capacity pipeline is its Huangshi New Project. In April 2026, the company entered into investment agreements with the Huangshi local government for the construction of integrated production facilities covering both high-end electronic fiberglass yarn and high-end electronic fiberglass fabric. Grace Fabric Technology has commenced preparatory work for the project, which is planned to have annual designed capacity of approximately 150 million meters of high-end electronic fabric.

The scale and positioning of this project are strategically important. Rather than adding predominantly conventional electronic-fabric capacity, the expansion is directed toward the high-end segment, where supply requirements are more technically demanding and where Grace Fabric Technology has established capabilities in ultra-thin, low-Dk/Df and low-CTE products. As the new capacity is progressively commissioned and ramped, it should alleviate existing production constraints and allow the company to translate growing customer demand into higher shipment volumes.

The shift toward higher-end capacity could also make Grace Fabric Technology's earnings profile less exposed to the pronounced pricing cycles associated with general-purpose electronic fabric. Commodity-grade electronic fiberglass fabric is more susceptible to conventional supply-demand cycles because product differentiation is limited, and incremental industry capacity can exert significant pressure on pricing. In contrast, super-thin, ultra-thin and special-purpose products have higher technological thresholds, a smaller qualified supplier base and more stringent downstream certification requirements. These characteristics can provide greater pricing support and reduce the intensity of price competition relative to standardized products.

Overall, against a backdrop of steady recovery in electronics demand and continued upgrading of PCB specifications, we expect Grace Fabric Technology's earnings profile to show both higher growth visibility and improved quality.

Investment Concerns

Despite Grace Fabric Technology's favorable positioning in high-end electronic fiberglass fabric and its ongoing capacity expansion, the company's growth and earnings outlook remain subject to several key risks, including demand cyclicality, intensifying competition, raw-material and energy cost volatility, and execution risks associated with new capacity and product development.

Demand cyclicality and slower-than-expected recovery in downstream electronics

Electronic fiberglass fabric demand is ultimately linked to PCB and CCL production and therefore remains exposed to cycles in consumer electronics, communications equipment, servers and other downstream electronics markets. While AI servers, high-performance computing and higher-speed networking provide structural growth drivers for high-end materials, these applications do not eliminate broader industry cyclicality. A slowdown in electronics demand, inventory destocking by PCB/CCL customers or weaker-than-expected AI infrastructure investment could result in lower utilization, shipment volumes and product pricing. This risk is particularly relevant as Grace Fabric Technology brings substantial new capacity online; if demand growth fails to keep pace with capacity additions, the utilization and earnings contribution of new facilities could fall below expectations.

Intensifying competition and faster localization of high-end products

Grace Fabric Technology currently benefits from relatively high technical barriers and a limited number of qualified competitors in ultra-thin, low-Dk/Df and low-CTE electronic fabrics. However, attractive growth and profitability in these segments are likely to encourage both domestic and overseas competitors to increase R&D expenditure and capacity investment. Successful qualification of competing products could gradually increase supply, reduce Grace Fabric Technology's differentiation, and place pressure on pricing and margins. Competition could also intensify if established overseas suppliers respond aggressively to Chinese manufacturers gaining share in advanced applications. Grace Fabric Technology must therefore continue investing in product development and process capabilities to maintain its technological lead as PCB specifications evolve.

Raw-material and energy cost volatility

Electronic yarn represents the largest input cost for electronic fiberglass fabric, making profitability sensitive to fluctuations in fiberglass yarn prices. While Grace Fabric Technology's upstream integration provides a degree of protection through greater yarn self-sufficiency, the company remains exposed to the underlying cost of raw materials and manufacturing inputs. Moreover, fiberglass yarn production is an energy-intensive process involving high-temperature glass melting and fiber drawing, creating additional exposure to electricity, natural gas and other energy prices. Sharp increases in raw-material or energy costs could compress margins if Grace Fabric Technology is unable to pass these increases through to customers on a timely basis. Conversely, rapid declines in yarn prices could also create inventory-related pressure and contribute to downward pricing expectations for finished fabric.

Execution risk associated with substantial capacity expansion

Grace Fabric Technology is entering a significant investment cycle, including the Huangshi New Project with planned annual designed capacity of approximately 150 million meters of high-end electronic fabric, alongside additional special-purpose electronic yarn capacity. The successful earnings contribution from these projects depends on construction proceeding on schedule, equipment installation and commissioning, successful production ramp-up, achievement of targeted yields and utilization, and sufficient customer demand to absorb the incremental output. Delays or cost overruns could reduce returns on invested capital, while slower-than-expected utilization could increase depreciation and fixed-cost absorption pressure.

Execution risk is particularly important for high-end capacity, where nominal installed capacity does not necessarily translate immediately into commercially qualified output. Super-thin, ultra-thin, low-Dk/Df and low-CTE fabrics require stringent process control and customer validation. Production yields may take time to optimize, and qualification cycles for advanced PCB and CCL applications can be lengthy. As a result, the revenue and profitability ramp of new high-end lines could lag their physical commissioning.

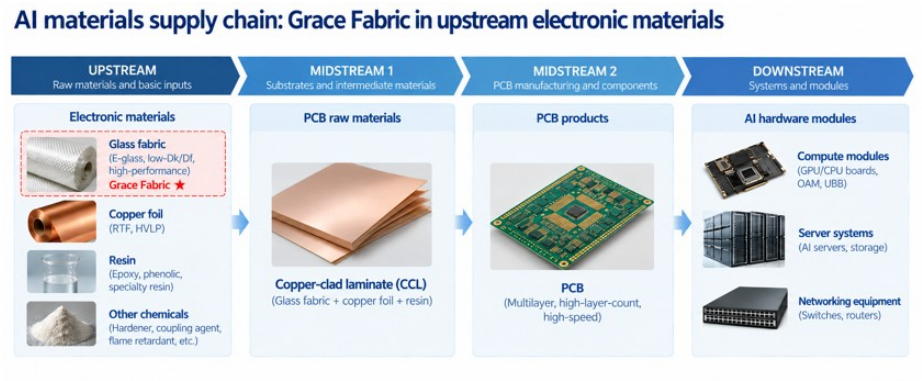
Overall, the central risk is that capacity expansion and industry supply could outpace the n of high-end demand. Grace Fabric Technology's vertical integration, technological capabilities and exposure to structurally growing applications provide meaningful competitive advantages, but they do not eliminate industry cyclicality. The sustainability of earnings growth will ultimately depend on the company's ability to maintain technological differentiation, ramp new capacity efficiently, preserve high utilization and translate increasing raw-material costs into downstream pricing.

Electronic Materials Industry Overview

Electronic-grade fiberglass yarn and fabric are critical upstream materials in the PCB value chain. As key reinforcing materials for CCLs, their properties directly affect PCB signal integrity, dimensional stability, reliability, and thermal performance.

Demand is primarily driven by downstream electronics applications, including communications infrastructure, data centers, AI servers, automotive electronics, and IC substrates. Continued increases in data transmission speeds, computing density, and PCB complexity are also raising material-performance requirements, supporting demand for higher-specification electronic fiberglass products.

Exhibit 8: Supply chain chart



Source: Morgan Stanley Research.

Compared with commodity fiberglass, electronic-grade products have substantially higher barriers to entry due to stringent requirements for product consistency and purity, lengthy customer qualification and certification cycles, and high switching costs once a material has been certified.

Exhibit 9: Overview of mainstream general-purpose electronic fabric products

Product type	Thickness (μm)	Product model	Price range (RMB/meter)	Typical application areas
Ultra-thin fabric (high-end)	< 28	1037/1027/1017/ 1010/1006/1001	4.8 – 66.4	• IC packaging substrates • High-end consumer electronics (including high-end smartphones and wearable devices)
Super-thin fabric (high-end)	28 – 35	1067/1035/106	2.2 – 22.1	• Server • Consumer electronics (including smartphones, wearable devices and tablet computer)
Thin fabric (mid-range)	36 – 100	2116/1280/1080/ 1078	2.0 – 12.4	• Telecommunications • Automotive electronics • Consumer electronics
Thick fabric (entry-level)	> 100	7628	2.1 – 15.9	• Automotive electronics • Home appliances

Source: Company filings.

Exhibit 10: Overview of mainstream special-purpose electronic fabric products

Product type	Product model	Product features and specification	Thickness (μm)	Price range (RMB/meter)	Typical application areas
Low Dk/Df fabric	GD series: 1017/ 1027/1037/1035/ 1067/1078 SD series: 1027/ 1035/1078	Over 30% reduction in dielectric constant, along with over 57% reduction in dissipation factor, compared to general-purpose electronic fabric	12 – 45	12.3 – 141.6	• AI and high-performance computing (including data center and high-speed network switches)
Low CTE fabric	GT series: 1010/ 1017/1024/1037/ 1067/2118 ST series: 2118	Over 35% reduction in CTE compared to general-purpose electronic fabric	11 – 95	20.7 – 165.5	• AI and high-performance computing • High-end consumer electronics • Autonomous driving
Quartz fabric	GQ series: 1027/ 1035/1078	Ultra-low dielectric constant (approximately 3.7), low dissipation factor (0.0002) (both at 10 GHz), and exceptionally low CTE (0.54 ppm/°C)	20 – 45	110.6 – 268.1	• Ultra-high-speed AI and high-performance computing

Source: Company filings.

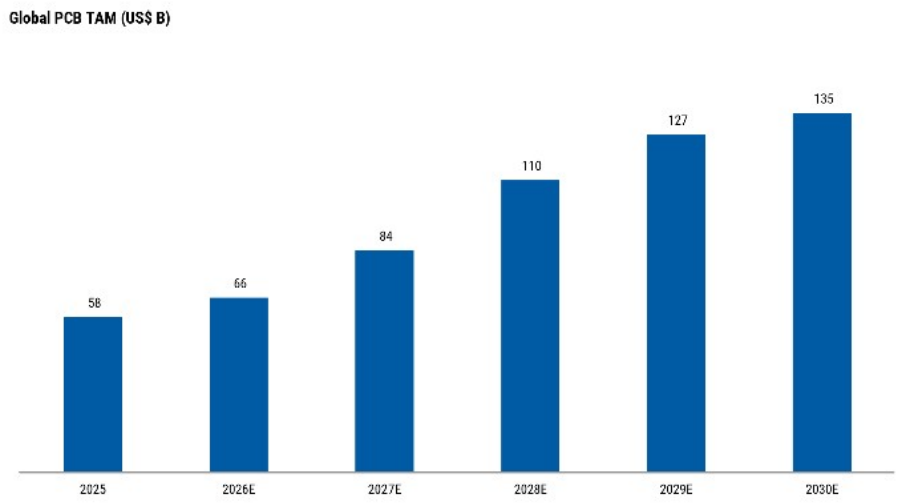
These characteristics create an industry structure defined by high customer stickiness, qualification-driven barriers, and technology-based differentiation. Suppliers capable of consistently meeting electrical, thermal, and dimensional specifications are therefore positioned to capture greater value as the downstream product mix shifts toward high-performance applications.

Rising demand from AI servers and data centers

Against the backdrop of the explosive growth of artificial intelligence, successive iterations in AI computing hardware are generating structural growth opportunities across the PCB industry. Compared with conventional servers and consumer electronics, AI servers typically incorporate higher-layer-count and higher-speed PCBs, which adopt (1) ultra-thin and extremely thin fiberglass fabrics, (2) tighter tolerance control, and (3) higher reliability standards, to accommodate the substantially greater interconnection density,

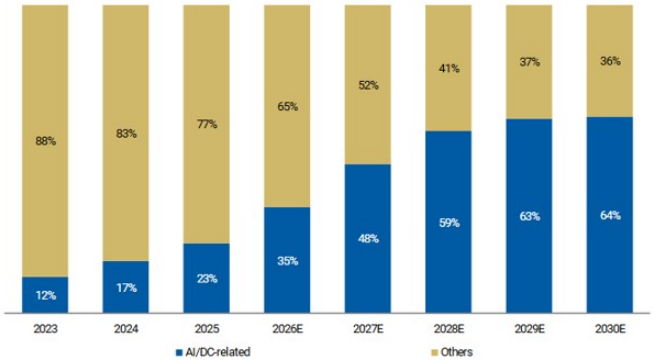
data transmission bandwidth and power requirements associated with GPUs, AI accelerators, high-bandwidth memory and high-speed networking components. The Morgan Stanley Research China Technology Hardware team estimates the global PCB addressable market will expand at an 18% CAGR, 2025-30, from ~US$58bn to ~US$135bn, driven almost entirely by AI and data-center infrastructure. AI/data-center PCB demand is expected to increase more than sixfold, from ~US$13bn in 2025 to ~US$86bn by 2030, taking its share of industry revenue from ~20-25% to ~64% (Exhibit 13). On our China Technology Hardware team's estimates, AI/data center applications account for essentially all of the industry's net growth through 2030, with demand across other end-markets broadly stable (see details). The team expects growth to be broad-based across general servers, GPU servers, custom ASIC servers, networking switches, and optical modules, supported by rising system shipments and continued scaling of compute clusters. PCB content per system should also increase materially, reflecting larger board sizes, higher layer counts, more advanced materials, tighter electrical requirements, and greater manufacturing complexity. The combination of higher volumes and rising PCB value per system should underpin sharp expansion in AI/data-center PCB demand through 2030.

Exhibit 11: Morgan Stanley's Greater China Technology Hardware team estimates the global PCB TAM will expand at an 18% CAGR, from ~US$58bn in 2025 to ~US$135bn in 2030



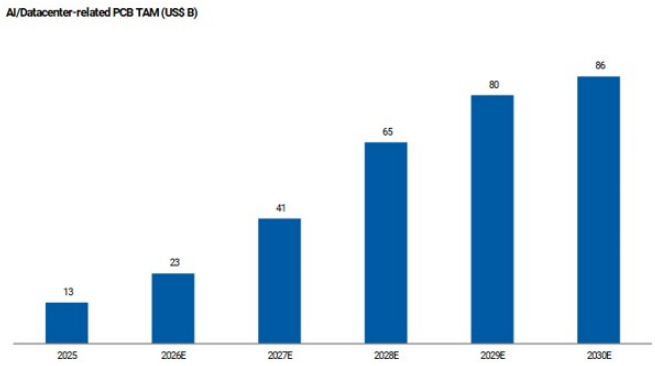
Source: Prismark, Morgan Stanley Research. e=Morgan Stanley Research estimates.

Exhibit 12: AI/Datacenter-related PCB mix will rise to ~64% by 2030E



Source: Morgan Stanley Research estimates.

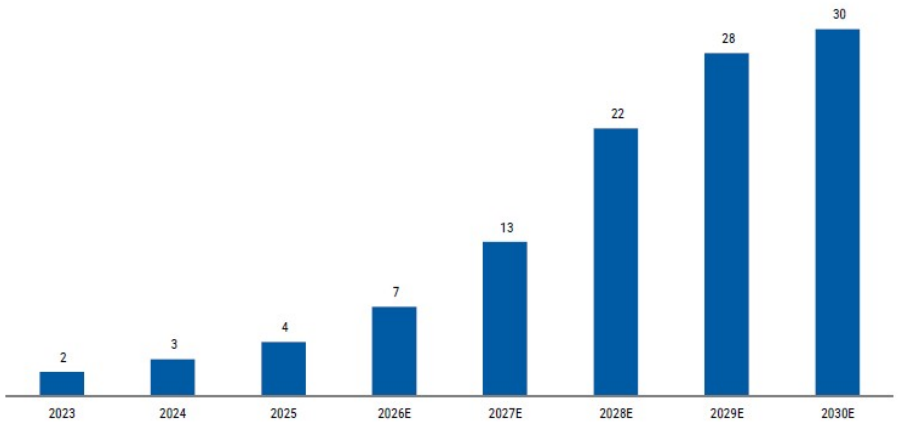
Exhibit 13: We estimate AI/data center-related PCB TAM to expand at a 45% CAGR, 2025-2030



Source: Morgan Stanley Research estimates.

AI has completely overhauled the entire PCB supply chain, going all the way up to upstream materials such as CCL (key raw material used in PCB production), copper foil (key raw material used in CCL production), as well as electronic glass cloth (key raw material used in CCL production), and others. Our China Technology Hardware team expects to see a broader adoption cycle for AI and high-speed CCL, 2026-2030. AI servers and accelerators require more, larger, and higher-layer-count PCBs, while next-generation switches, silicon-photonics modules, storage infrastructure, edge AI, and rising electronics content in vehicles are pushing laminate requirements higher. These applications require lower signal loss, tighter dielectric control, better thermal performance, greater dimensional stability, and higher reliability, driving demand for customer-qualified high-speed materials. The team estimates the global CCL addressable market will grow at approximately a 20% CAGR between 2025 and 2030, increasing from around US$19bn to US$47bn, driven overwhelmingly by AI and data-center infrastructure. The AI and data-center-related CCL market is projected to rise from ~US$4bn in 2025 to ~US$30bn by 2030, representing a ~47% CAGR and more than sevenfold growth (Exhibit 14). Its share of the overall CCL market would consequently increase from 23% in 2025 to 63% by the end of the decade. On these assumptions, AI and data-center applications would contribute ~US$26bn of the industry's ~US$28bn net growth over the period, or ~90%, while demand from other end-markets remains broadly stable, at approximately US$15-17bn.

Exhibit 14: MS China Technology Hardware team estimates AI-Datacenter-related CCL TAM to grow at a 47% CAGR, 2025-2030



Source: Morgan Stanley Research estimates.

Structural upgrade toward high-frequency, high-speed materials

With the rapid growth of 5G, AI computing, cloud infrastructure, and high-performance servers, PCBs are increasingly required to support higher signal transmission speeds, lower dielectric loss (Low Dk / Low Df) and better thermal stability and dimensional control (Low CTE). These developments, in turn, are driving electronic-grade fiberglass fabrics to evolve toward higher-functionality specifications. Low-Dk/Df fabric can effectively reduce signal transmission loss and improve transmission stability. Meanwhile, as chip shipments increase and package sizes expand, IC packaging substrates demand higher material stability. Low-CTE fabric reduces risks caused by thermal mismatch, thus it becomes a key direction for electronic fabric performance upgrading.

Compared with consumer electronics, this segment features higher ASPs, longer product life cycles, and more stable demand, providing structural support to the electronic materials industry. Given that the value of the PCBs and electronic fabric incorporated in a single AI server substantially exceeds that used in a traditional server, we expect demand for high-functionality special-purpose electronic fabric – such as low-Dk/Df and low-CTE fabric – to grow significantly as AI applications continue to expand.

In the high-end consumer electronics segment, smartphones, tablets, and other smart devices continue to evolve toward thinner, lighter, and more compact form factors, driving the continued development of electronic fabric toward thinner and lighter specifications. Furthermore, as AI technologies become more widely adopted, next-generation intelligent terminal devices – including AI smartphones and tablets and AR/VR devices – will require PCBs with increasingly advanced performance capabilities, sustaining demand for special-purpose electronic fabric.

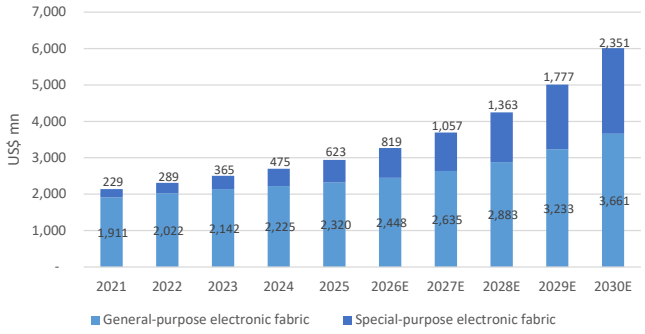
Exhibit 15: Glass fiber, by type and application

Application		Device/ component	Substrate type		Required performance	Glass fiber type	
						High-end	Middle-end
Telecom/ infra-structure	• Base stations • Data center Switch/Router Server • AI servers	Processor· controller	Semiconductor package substrate	CPU/GPU/ASIC	Low CTE	T	E
				NAND memory	Low CTE	T	E
				LPDDR memory	Low CTE	T	
				DDR memory	Low dielectric tangent	NE / NER	E
		Motherboard	Servers (AI, General)		Low dielectric tangent	NE / NER	E
			Switch (Core, AI)		Low dielectric tangent	NE / NER / NEZ	E
			Network card (NIC)		Low dielectric tangent	NE / NER	E
Edge equipment	Smartphone Tablet Mobile PC Edge AI device	Processor	Semiconductor package substrate	AP·CPU/NPU	Low CTE	Ultra-thin T, T	Ultra-thin E
		Non-volatile memory		NAND memory	Low CTE	Ultra-thin T	Super ultra-thin E
		Volatile memory		DDR memory	Low CTE	Ultra-thin T (Smartphone)	
		Volatile memory		DDR memory	Low dielectric tangent	NE (PC)	
		Motherboard	Motherboard		Low dielectric tangent	Ultra-thin NE	Ultra-thin E
		Wireless communication	RF package substrate		Low dielectric tangent	Ultra-thin NE	Ultra-thin E
	Desktop· Laptop PC	CPU·memory	Semiconductor package substrate	CPU/GPU/NPU	Low CTE	T	E
		Motherboard		DDR memory	Low dielectric tangent	NE (PC)	E
	AR/VR·Drone	Advanced SoC	Semiconductor package substrate		Low CTE	T	Ultra-thin E
Automobile	EV·ADAS	Advanced SoC	Semiconductor package substrate		Low CTE	T	E
		Millimeter wave radar	Module board		Low dielectric tangent	Ultra-thin NE	E

Source: Nittobo.

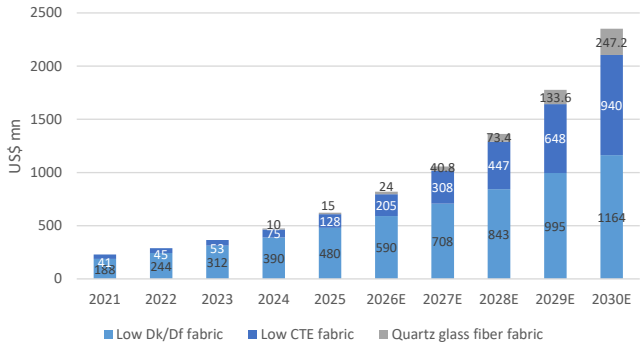
Frost & Sullivan estimates that the global electronic fabric market will grow to US $6,012.0 million by 2030, from US$2,943.0 million in 2025, representing a CAGR of 15.4%. Special-purpose electronic fabric is a main contributor, delivering a 30.4% revenue CAGR, 2025-30e. Within the special-purpose electronic fabric segment, the CAGRs of the global markets for low-Dk/Df fabric and low CTE fabric are expected to reach 19.4% and 49.0%, respectively, from 2025 to 2030, per Frost & Sullivan forecasts. Second-generation low-Dk/Df fabric – representing a key material direction for performance requirements – is expected to reach a market size of US$350.0 million by 2030, accounting for 30.0% of the total low-Dk/Df fabric market, growing at a CAGR of 37.9% from 2025 to 2030, per Frost & Sullivan forecasts.

Exhibit 16: Special-purpose electronic fabric to lead the segment growth during 2025-30



Source: Frost & Sullivan, Morgan Stanley Morgan Stanley Research. E=Frost & Sullivan estimates.

Exhibit 17: Global special-purpose electronic fabric market breakdown, by product type



Source: Frost & Sullivan, Morgan Stanley Research. E=Frost & Sullivan estimates.

This has accelerated the transition from conventional E-glass fabrics toward high-performance electronic fabrics, benefiting suppliers with proven R&D and manufacturing capabilities.

Accelerating domestic substitution in China

China's push toward domestic substitution in the PCB and CCL supply chain is becoming increasingly structural rather than purely cyclical. The trend reflects a combination of geopolitical considerations, supply-chain resilience requirements, improving domestic technology capabilities, and stronger customer willingness to qualify alternative local suppliers.

Supply-chain security has become a strategic priority. Geopolitical uncertainty, technology restrictions, and concerns over potential supply disruptions have increased the importance of supply-chain security for Chinese electronics manufacturers. PCB and CCL producers are therefore seeking to reduce dependence on imported materials, particularly where the supplier base is concentrated in Japan and Taiwan. Instead of immediate replacements, local manufacturers are increasingly pursuing dual- or multi-sourcing strategies. A qualified Chinese supplier can serve as a second source initially and gradually capture a larger share of procurement once its quality and reliability have been demonstrated. This creates a relatively durable pathway for domestic suppliers to enter accounts historically dominated by established foreign vendors.

The addressable market is moving beyond low-end applications. Historically, Chinese material suppliers were more competitive in commodities and lower-specification products, while Japanese and Taiwanese companies found clear advantages in higher-end applications requiring tighter tolerances and greater reliability. That gap is gradually narrowing. Leading domestic suppliers have improved manufacturing consistency, process control, R&D capabilities, and technical support, to penetrate applications with higher qualification requirements and build their existences in midrange to high-end PCBs, automotive electronics, industrial electronics, servers and communications.

Overall, we expect to observe a gradual but sustainable increase in domestic market share for qualified local suppliers amid the accelerating domestic substitution, benefitting players that combine technical capability, consistent product quality, customer qualification credentials and scalable production.

Peer Comparison

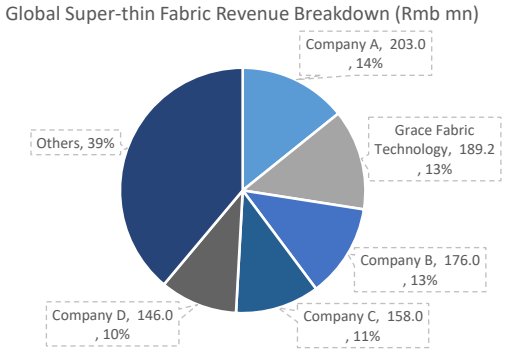
Grace Fabric Technology competes in a global electronic fiberglass market characterized by a relatively broad supplier base in conventional E-glass fabric but a much narrower competitive set at the high end of the market. As PCB requirements migrate toward ultra-thin, low-Dk/Df and low-CTE materials, competitive differentiation increasingly depends on proprietary glass formulations, ultra-fine yarn capabilities, precision weaving, customer qualification and the ability to manufacture advanced products consistently at scale. Therefore, the combination of leading ultra-thin fabric capabilities, upstream yarn integration and an expanding portfolio of low-Dk/Df and low-CTE products have, per our assessment, granted Grace Fabric Technology a more defensible competitive position compared to its peers.

Revenue contribution

In 2025, there were more than 40 electronic fabric manufacturers worldwide. Grace Fabric Technology ranked second in global electronic fabric markets and first among manufacturers in mainland China in terms of revenue from super-thin fabric in 2025, with a revenue market share of 13.3%.

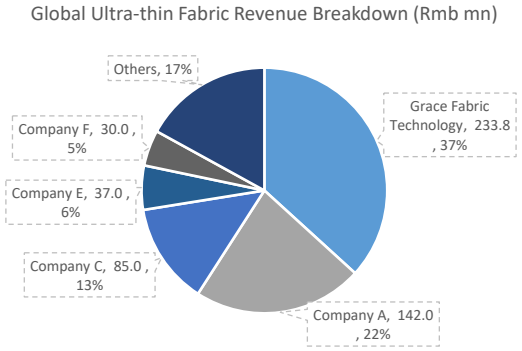
In terms of revenue from ultra-thin fabric, Grace Fabric Technology ranked first in 2025, with a market share of 36.7%. The company ranked first in global electronic fabric markets in terms of total revenue from super-thin and ultra-thin fabric, combined, in 2025, with a market share of 20.5%.

Exhibit 18: Grace Fabric Technology's super-thin fabric revenue in 2025 vs global peers



Source: Company filings, Frost & Sullivan, Morgan Stanley Research. Note: (1) Company A is a public company founded in 1964 and listed on the Taiwan Stock Exchange, headquartered in Taiwan and committed to providing glass products. (2) Company B is a public company founded in 1958 and listed on the Taiwan Stock Exchange, headquartered in Taiwan and committed to providing processed plastic products, chemical products, electronic fabrics, polyester fiber and related engineering services. (3) Company C is a public company founded in 1923 and listed on the Tokyo Stock Exchange, headquartered in Japan, committed to providing electronic materials. (4) Company D is a public company founded in 1991 and listed on the Shenzhen Stock Exchange, headquartered in mainland China, committed to providing fiberglass and composite material products.

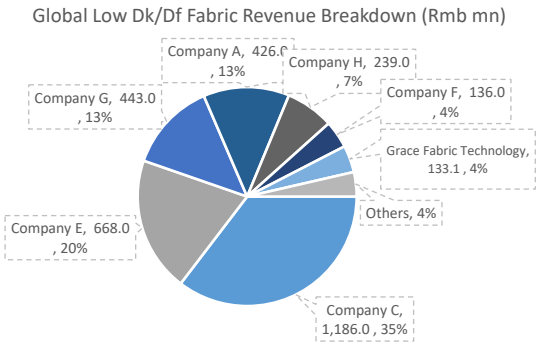
Exhibit 19: Grace Fabric Technology's ultra-thin fabric revenue in 2025 vs global peers



Source: Company filings, Frost & Sullivan, Morgan Stanley Research. Note: (1) Company A is a public company founded in 1964 and listed on the Taiwan Stock Exchange, headquartered in Taiwan and committed to providing glass products. (2) Company C is a public company founded in 1923 and listed on the Tokyo Stock Exchange, headquartered in Japan, committed to providing electronic materials. (3) Company E is a public company founded in 1931 and listed on the Tokyo Stock Exchange, headquartered in Japan, committed to providing diversified chemical and material products. (4) Company F is a private company founded in 2011, headquartered in mainland China, committed to providing electronic fabrics.

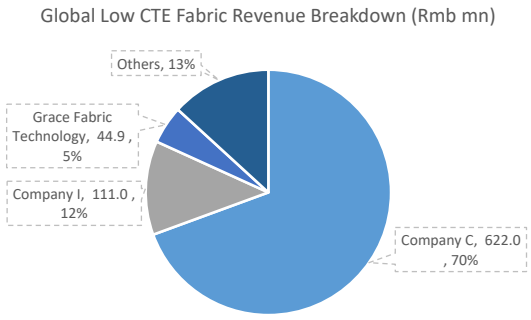
Moving to the advanced segments of low-Dk/Df fabric, Grace Fabric Technology ranked seventh in global electronic fabric markets and third among manufacturers in mainland China in terms of revenue from low-Dk/Df fabric in 2025, with a market share of 4.0%. For low-CTE fabric, the company ranked third in global electronic fabric markets and first among manufacturers in mainland China in terms of revenue from low-CTE fabric in 2025, with a market share of 5.0%.

Exhibit 20: Grace Fabric Technology's low-Dk/Df fabric revenue in 2025 vs global peers



Source: Company filings, Frost & Sullivan, Morgan Stanley Research. Note: (1) Company A is a public company founded in 1964 and listed on the Taiwan Stock Exchange, headquartered in Taiwan , committed to providing glass products. (2) Company C is a public company founded in 1923 and listed on the Tokyo Stock Exchange, headquartered in Japan, committed to providing electronic materials. (3) Company E is a public company founded in 1931 and listed on the Tokyo Stock Exchange, headquartered in Japan, committed to providing diversified chemical and material products. (4) Company F is a private company founded in 2011, headquartered in mainland China, committed to providing electronic fabrics. (5) Company G is a private company founded in 1997, headquartered in mainland China, committed to providing glass fibers and articles thereof. (6) Company H is a public company founded in 1999 and listed on the Taipei Exchange, headquartered in Taiwan and committed to electronic fabrics.

Exhibit 21: Grace Fabric Technology's low-CTE fabric revenue in 2025 vs global peers

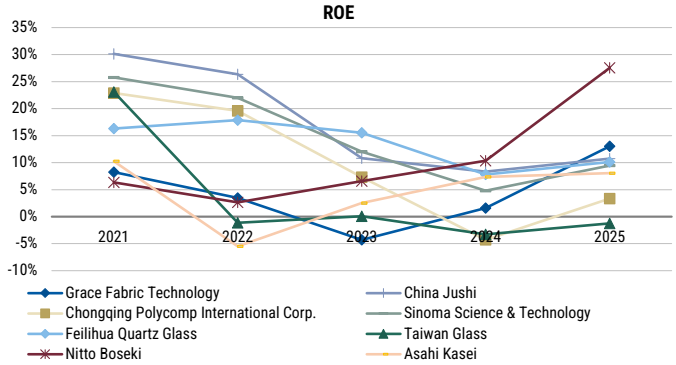


Source: Company filings, Frost & Sullivan, Morgan Stanley Research. Note: (1) Company C is a public company founded in 1923 and listed on the Tokyo Stock Exchange, headquartered in Japan, committed to providing electronic materials. (2) Company I is a public company founded in 1889 and listed on the Tokyo Stock Exchange, headquartered in Japan, committed to providing polymer and electronic fabrics.

Financials

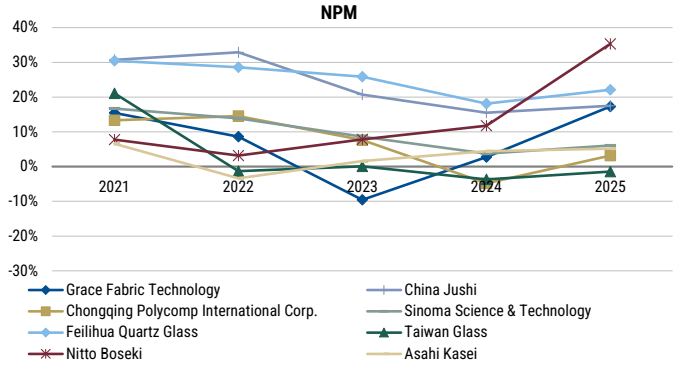
We take a closer look at Grace Fabric Technology's key financial metrics compared to its domestic and global peers, including China Jushi, Chongqing Polycomp International Corp., Sinoma Science & Technology, Feilihua Quartz Glass, Taiwan Glass, Nitto Boseki, and Asahi Kasei. In 2025, Grace Fabric Technology's ROE was the second highest in the group, following its Japanese peer Nitto Boseki, with support from its relatively high net margin, average asset turnover ratio, and top-performing equity multiplier among peers.

Exhibit 22: ROE comparison



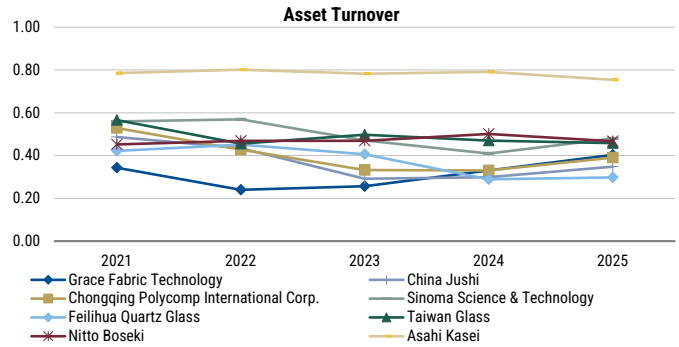
Source: Company filings, FactSet, Morgan Stanley Research.

Exhibit 23: Net profit margin comparison



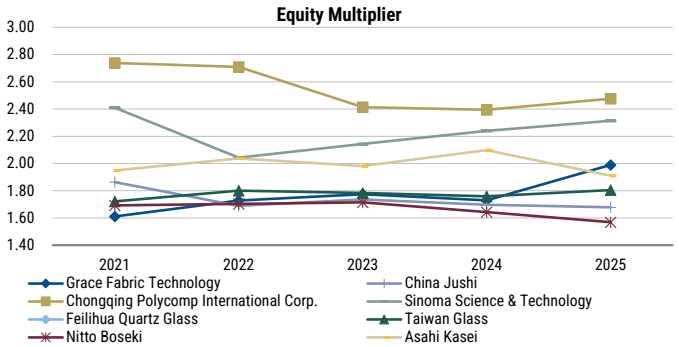
Source: Company filings, FactSet, Morgan Stanley Research.

Exhibit 24: Asset turnover ratio comparison



Source: Company filings, FactSet, Morgan Stanley Research.

Exhibit 25: Equity multiplier comparison



Source: Company filings, FactSet, Morgan Stanley Research.

Valuation

Methodology: P/E

Our P/E valuation methodology implies a price target of Rmb170/sh: We derive our price target from 45x 2028e P/E, or 0.9x PEG. We believe Grace Fabric Technology should be viewed as a technology-driven electronic materials supplier and assessed against specialty PCB materials peers, rather than a commodity glass fiber producer, considering that its near-term earnings remain exposed to PCB industry cyclicality. We believe our valuation is fair, considering the company's strong structural growth and sustained technological differentiation.

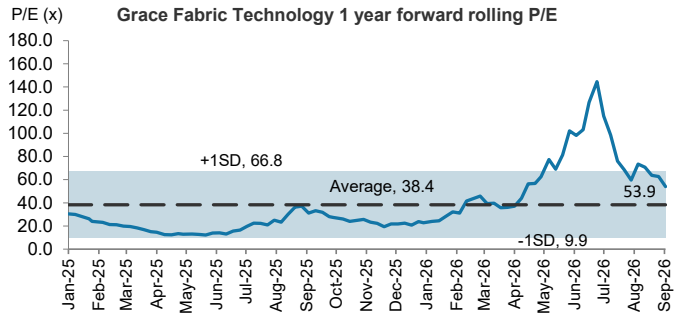
Exhibit 26: Grace Fabric Technology: P/E valuation

P/E	2025	2026	2027	2028	2029	2030
Net profit (Rmb mn)	202	1,395	2,238	3,346	4,884	6,754
YoY %	786%	591%	61%	49%	46%	38%
EPS (Rmb/sh)	0.230	1.585	2.544	3.803	5.552	7.677
YoY %	786%	591%	61%	49%	46%	38%
Spot price implied P/E (x)	559	81	50	34	23	17
Target price P/E (x)				**45**		
Target price implied PEG (x)				0.90		
Price target (Rmb/sh)				**170**		

Source: Company data, Morgan Stanley Research estimates.

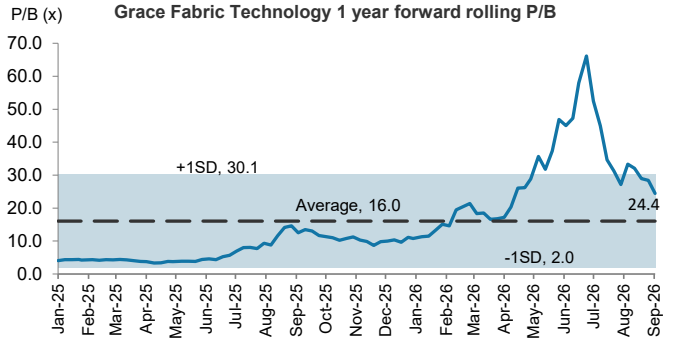
Our target P/E multiple is above Grace Fabric Technology's average P/E of 38.4x since 2025, when its product mix began to shift toward higher-value offerings. This multiple is also higher than most of its peers but comparable to Feilihua Quartz Glass (300395.SZ), which focuses on producing reinforcement materials for high-end PCBs. Therefore, we believe Feilihua's 42x 2028e P/E (based on FactSet consensus estimates) is a fair reference. We believe the valuation premium is reasonable, as it reflects Grace Fabric Technology's strong fundamentals, including its higher-end product mix, ongoing capacity expansion, and potential for ASP and margin growth. Grace Fabric Technology is also the earliest among Chinese producers to receive all downstream certifications on low DK1/2, low CTE and quartz fabric, with order visibilities for the next 3-5 years.

Exhibit 27: Grace Fabric Technology: One-year forward P/E



Source: FactSet, Morgan Stanley Research

Exhibit 28: Grace Fabric Technology: One-year forward P/B



Source: FactSet, Morgan Stanley Research

Exhibit 29:

Valuations of glass fiber producers

Ticker		Market cap	2026E PE	2027E PE	2028E PE	2026E PB	2027E PB	2028E PB	2026E EV/EBITDA	2027E EV/EBITDA	2028E EV/EBITDA	2026E ROE	2027E ROE	2028E ROE	2026E Div Yield	2027E Div Yield	2028E Div Yield
		USDmn	x	x	x	x	x	x	x	x	x	%	%	%	%	%	%
Chinese glass fiber producers																	
600176.SS	China Jushi*	25,942	23.4	14.7	13.1	4.9	4.1	3.5	15.8 e	10.3 e	8.9 e	22.4%	30.6%	29.2%	1.9% e	3.0% e	3.3% e
603256.SS	Grace Fabric Technology*	17,414	81.4	50.7	33.9	38.2	22.6	14.1	64.1 e	41.0 e	27.6 e	60.3%	55.9%	51.2%	0.1% e	0.2% e	0.3% e
301526.SZ	Chongqing Polycomp Intl Corp	6,161	61.9	34.2	24.4	11.6	9.6	8.0				18.8%	28.2%	32.7%			
002080.SZ	Sinoma Science & Technology	12,724	27.1	17.6	13.1	3.8	3.3	2.8	17.7	14.3	14.5	14.2%	18.8%	21.4%	1.6%	2.6%	3.2%
300395.SZ	Feilihua Quartz Glass	7,878	76.0	53.9	42.0	9.6	8.3	7.1	48.4	35.4	27.8	12.6%	15.4%	16.9%	0.2%	0.3%	
Average			*54.0*	*34.2*	*25.3*	*13.6*	*9.6*	*7.1*	*36.5 e*	*25.3 e*	*19.7 e*	*25.6%*	*29.8%*	*30.2%*	*0.9%*	*1.5%*	*2.3%*
Median			*61.9*	*34.2*	*24.4*	*9.6*	*8.3*	*7.1*	*33.1 e*	*24.8 e*	*21.0 e*	*18.8%*	*28.2%*	*29.2%*	*0.9%*	*1.5%*	*3.2%*
Regional glass fiber producers																	
3110.T	Nitto Boseki*	3,621	27.2	19.6	14.9	2.8	2.6	2.3	14.6 e	11.2 e	8.6 e	10.9%	13.7%	16.1%	1.0% e	1.7% e	2.0% e
3407.T	Asahi Kasei*	13,900	10.0	8.6	7.8	1.0	0.9	0.9	6.3 e	5.8 e	5.4 e	9.9%	10.8%	11.4%	2.8% e	3.3% e	3.7% e
1802.TW	Taiwan Glass	5,491	27.9	15.1		3.2			16.4	10.9		11.6%					
Average			*21.7*	*14.5*	*11.3*	*2.3*	*1.7*	*1.6*	*12.4 e*	*9.3 e*	*7.0 e*	*10.8%*	*12.3%*	*13.7%*	*1.9%*	*2.5%*	*2.9%*
Median			*27.2*	*15.1*	*11.3*	*2.8*	*1.7*	*1.6*	*14.6 e*	*10.9 e*	*7.0 e*	*10.9%*	*12.3%*	*13.7%*	*1.9%*	*2.5%*	*2.9%*

Source: FactSet, Morgan Stanley Research estimates. Note: * are based on Morgan Stanley Research estimates. Others are based on FactSet consensus estimates. Data as of the market close on September 10, 2026.

Base/Bull/Bear Case Scenario Analysis

Our base/bull/bear case scenarios are mainly based on our different forecasts for sales volume, glass fiber prices and unit COGS.

Base case, Rmb170: We expect a still robust investment cycle for AI servers and data centers, which has lent support to glass fiber fabric hikes. We assign sales volume forecasts for 2026-28 of 193/236/301 million meters. We assign average glass fiber fabric price forecasts for 2026-28 of Rmb27.7/35.5/38.2 per meter. We estimate Grace Fabric Technology's unit COGS for 2026-28 to arrive at Rmb13.4/16.4/17.0 per meter. Our base case scenario value is also our price target. It implies 45x 2028E P/E.

Bull case, Rmb218: We assume higher-than-expected demand for glass fiber fabric against the backdrop of solid investment for AI servers and data centers, which has lent support to further glass fiber fabric price hikes. We assign sales volume forecasts for 2026-28 of 214/263/334 million meters. We assign glass fiber fabric price forecasts for 2026-28 of Rmb28.0/36.4/39.9 per meter. We estimate Grace Fabric Technology's unit COGS for 2026-28 to arrive at Rmb13.0/16.1/17.1 per meter. Our bull case scenario value implies 57x 2028E P/E.

Bear case, Rmb90: We assume weaker glass fiber fabric prices amid slower-than-expected investments for AI servers and data centers. We assign sales volume forecasts for 2026-28 of 173/210/269 million meters. We assign glass fiber fabric price forecasts for 2026-28 of Rmb27.5/34.6/36.5 per meter. We estimate Grace Fabric Technology's unit COGS for 2026-28 to arrive at Rmb13.9/16.6/17.1 per meter. Our bear case scenario value implies 24x 2028E P/E.

Company Overview

Company History and Milestones

Grace Fabric Technology was founded in the late 1990s and has focused on electronic glass fiber fabric since inception. The company built its initial manufacturing base in Shanghai, accumulating operational know-how in electronic-grade fabrics over more than two decades.

Exhibit 30: Grace Fabric Technology: Key milestones

2008 → **Strategic Repositioning**	· Moved away from low-end products to avoid homogeneous competition; · Focused on thinner, higher-end products, benchmarking Japan's Nittobo.
2011 → **Market Breakthrough**	· Following Nittobo's production disruption due to earthquake, the company's 50 µm 1080 ultra-thin fabric entered Panasonic Electric Works' global supply chain.
2015-2019 → **Commercial Scale-Up**	· Became the designated supplier of ultra-thin fabric for a leading consumer electronics company.
2016 → **Independent R&D Launched**	· Started a confidential internal R&D program for ultra-fine yarn to reduce upstream supply-chain dependency on Japanese imports.
2018 → **Technology Validation**	· Completed the validation of small-batch production of ultra-fine yarn using the crucible method.
2021 → **Yarn Capacity Ramp-up**	· Huangshi facility achieved approximately 8,000 tonnes per year of ultra-fine yarn production capacity.

Source: Company filings, Morgan Stanley Research.

A key strategic inflection point occurred with its 2019 IPO, which provided capital for capacity upgrades, technology development and upstream integration. The company subsequently invested in electronic glass fiber yarn production, notably through its wholly-owned Huangshi subsidiary, reducing reliance on third-party suppliers and improving cost control.

As one of the few manufacturers in the world with the capability to produce ultra-thin fabrics, Grace Fabric Technology is able to advance product thickness to as low as 8 micrometers, and its technical level is on par with Japan's Nitto Boseki. Indeed, the company has realized batch deliveries of AI-related high value-added products to customers in 2H25, including low-dielectric functional products (Low-Dk) and low-coefficient-of-thermal-expansion products (Low CTE).

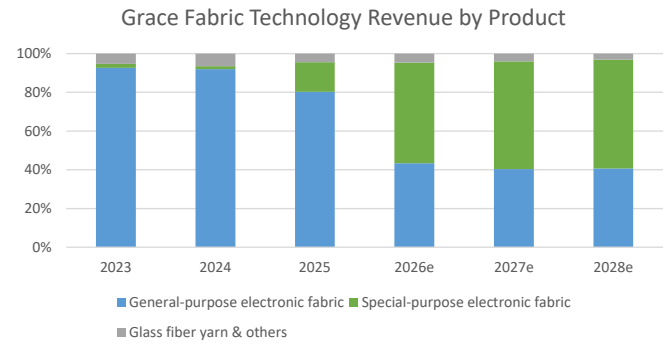
Business Segments and Product Portfolio

Grace Fabric Technology's core products include (1) conventional electronic glass (E-glass) fiber fabric, used in standard PCB applications, (2) high-end E-glass fiber fabric (e.g., super-thin and ultra-thin), designed for high-frequency, high-speed and high-layer PCBs, (3) AI-related glass fiber fabric (e.g., Low Dk, Low CTE and Q-fabric), which meet the needs of AI servers and high-speed communication equipment, and (4) electronic glass fiber yarn, enabling integrated yarn-fabric production and supply chain resilience; thanks to the large-scale production of its Huangshi Grace electronic yarn project, the company has achieved 100%/70% self-sufficiency rates for its AI-related and E-glass fiber fabric, respectively.

The electronic-grade fiberglass fabric industry exhibits a high concentration characteristic ("high-end concentrated, low-end competitive"), with the global market mainly dominated by international giants such as Japan's Asahi Kasei, Nitto Boseki, and Taiwan's Taiwan Glass. However, domestic enterprises are gradually narrowing the gap through technological innovation and capacity expansion. As a leading domestic high-end electronic fabric manufacturer, Grace Fabric Technology also possesses several competitive advantages with its continuous R&D commitment. In 2025, its R&D investment reached Rmb62.9 million, up 44.4% YoY, focusing on the layout of cutting-edge products such as low-Dk and low-CTE fabrics and yield improvements. Grace Fabric Technology's overall glass fiber fabric yield stands at over 85%, while that of conventional electronic glass and Gen 1 low-Dk products have approached 90%.

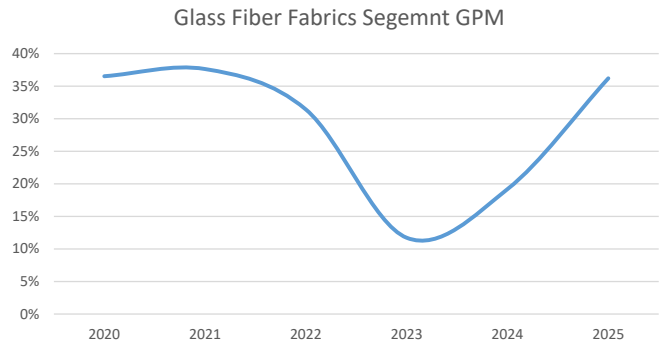
Over time, revenue contribution from high-end glass fiber fabrics has increased, improving its overall margin stability. In 2025, specialty E-glass fabric contributed 15.2% of total revenue, compared to just 1.5% in 2024. As a result, Grace Fabric Technology's overall glass fiber fabrics segment gross profit margin almost doubled in 2025. From 2026 onwards, we expect special-purpose glass fabric to become the main revenue driver, contributing 52.0%/55.6%/56.2% of total revenue in 2026/27/28, respectively.

Exhibit 31: Special-purpose glass fiber fabrics shall become the largest revenue contributor from 2026 onwards



Source: Company filings, Morgan Stanley Research. e=Morgan Stanley Research estimates.

Exhibit 32: Glass fiber fabrics segment gross profit margin almost doubled in 2025



Source: Company filings, Morgan Stanley Research.

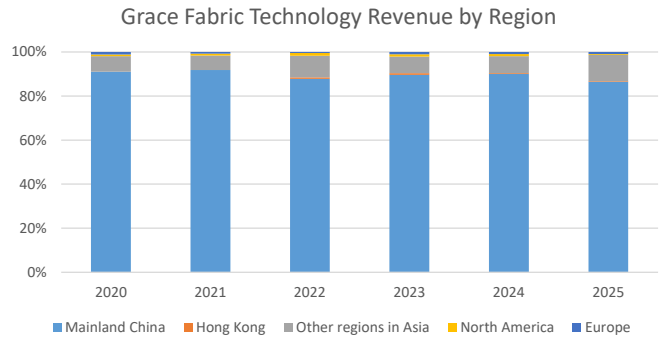
Geographic Footprint and Customer Portfolio

Production and R&D activities are primarily located in mainland China, with downstream customers across domestic and international PCB and CCL supply chains. Indeed, Grace Fabric Technology has entered the supply chains of companies such as Japan's Panasonic and Hitachi, and Taiwan's ITEQ Corporation, Elite Material, and Taiwan Union Technology Corporation.

By region, mainland China remains the largest source of Grace Fabric Technology's revenue, at 86.5% of the total in 2025, while the sales contribution from other regions in Asia also trended up, to 12.0%.

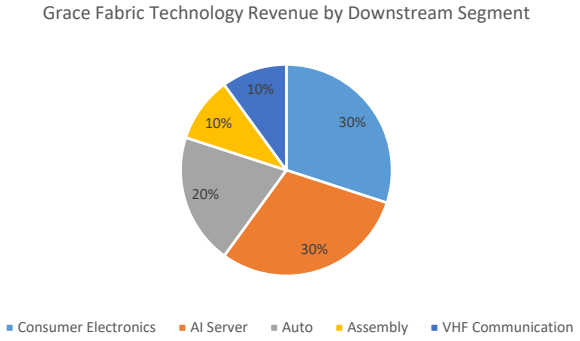
By sector, in 2025, orders from the consumer electronics and AI server segments were the largest sources of revenues, both contributing 30%, followed by the auto, assembly, and VHF communication segments at 20%, 10% and 10%, respectively.

Exhibit 33: Grace Fabric Technology: Mainland China is the largest source of revenue



Source: Company filings, Morgan Stanley Research.

Exhibit 34: Grace Fabric Technology: AI servers was a pillar of the company's revenue in 2025



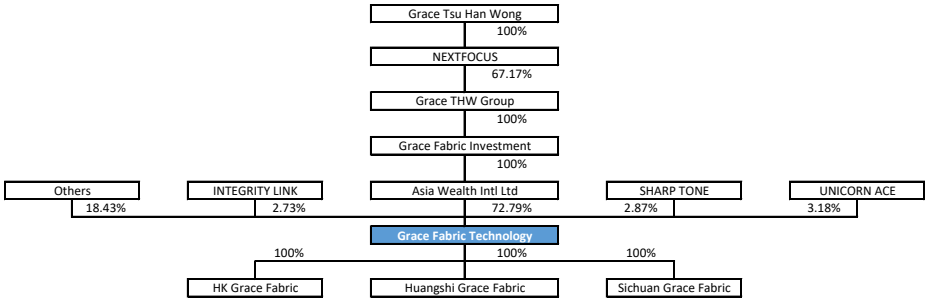
Source: Company filings, Morgan Stanley Research.

Shareholding Structure

As of end-2025, Asia Wealth International Ltd holds a 72.79% stake in Grace Fabric Technology, which was ultimately controlled by Grace Tsu Han Wong, the daughter of Taiwanese business tycoon Winston Wong. In addition, Grace Tsu Han Wong also indirectly holds an 8.78% stake through SHARP TONE, UNICORN ACE and INTEGRITY LINK.

Operationally, Grace Fabric Technology carries out its export and import businesses through its wholly-owned subsidiary, Hong Kong Grace Fabric. Huangshi Grace Fabric mainly focuses on the production of electronic fabric and yarn, supporting Grace Fabric Technology's integrated production and operation while reducing its reliance on raw materials imports.

Exhibit 35: Grace Fabric Technology: Shareholding structure as of end-2025



Source: Company filings, Bloomberg, Morgan Stanley Research.

Risk Reward Reference links

1. View explanation of Options Probabilities methodology - Options_Probabilities_Exhibit_Link.pdf

2. View descriptions of Risk Rewards Themes - RR_Themes_Exhibit_Link.pdf

3. View explanation of regional hierarchies - GEG_Exhibit_Link.pdf

4. View explanation of Theme/Exposure methodology - ESG_Sustainable_Solutions_External_Link.pdf

5. View explanation of HERS methodology - ESG_HERS_External_Link.pdf

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(as of August 31, 2026)

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	Coverage Universe		Investment Banking Clients (IBC)			Other Material Investment Services Clients (MISC)	
Stock Rating Category	Count	% of Total	Count	% of Total IBC	% of Rating Category	Count	% of Total Other MISC
Overweight/Buy	1555	42%	450	48%	29%	767	44%
Equal-weight/Hold	1577	43%	395	42%	25%	770	44%
Not-Rated/Hold	3	0%	1	0%	33%	1	0%
Underweight/Sell	559	15%	93	10%	17%	216	12%
Total	3,694		939			1754	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

Analyst Stock Ratings

Overweight (O). The stock's total return is expected to exceed the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Equal-weight (E). The stock's total return is expected to be in line with the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Not-Rated (NR). Currently the analyst does not have adequate conviction about the stock's total return relative to the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Underweight (U). The stock's total return is expected to be below the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

Analyst Industry Views

Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.

Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.

Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

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INDUSTRY COVERAGE: Greater China Materials

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/11/2026)
Chris Jiang		
Anhui Honglu Steel Construction (002541.SZ)	U (12/16/2025)	Rmb18.70
CGN Mining Co Ltd (1164.HK)	O (01/18/2023)	HK$2.28
Chengxin Lithium Group Co. Ltd. (002240.SZ)	E (12/16/2025)	Rmb27.25
GEM Co Ltd (002340.SZ)	U (04/20/2026)	Rmb6.24
Shenzhen Kedali Industry Co Ltd (002850.SZ)	O (08/21/2023)	Rmb171.40
Sinomine Resource Group Co Ltd (002738.SZ)	O (12/16/2025)	Rmb43.90
Yongxing Special Materials Technology (002756.SZ)	E (11/25/2022)	Rmb41.12
Zhejiang Huayou Cobalt Co Ltd (603799.SS)	O (10/08/2025)	Rmb36.06
Hannah Yang, CFA		
China Hongqiao Group (1378.HK)	O (09/15/2023)	HK$22.50
Chuangxin Industries Holdings Ltd. (2788.HK)	O (03/19/2026)	HK$16.90
Flat Glass Group Co Ltd (6865.HK)	O (07/30/2020)	HK$6.21
Flat Glass Group Co Ltd (601865.SS)	O (07/30/2020)	Rmb9.47
MMG Ltd (1208.HK)	O (12/16/2024)	HK$9.07

Shandong Pharmaceutical Glass Co. Ltd. (600529.SS)	U (04/20/2026)	Rmb18.54
Shenhuo Coal and Power (000933.SZ)	O (09/02/2025)	Rmb27.15
Tianshan Aluminum (002532.SZ)	E (07/08/2026)	Rmb13.22
Xinyi Glass Holding Limited (0868.HK)	U (05/14/2024)	HK$8.79
Zhongfu Shenying Carbon Fiber Co Ltd (688295.SS)	O (08/25/2023)	Rmb37.44
Rachel L Zhang		
Aluminum Corp. of China Ltd. (601600.SS)	O (11/30/2020)	Rmb9.44
Aluminum Corp. of China Ltd. (2600.HK)	O (11/30/2020)	HK$8.35
Baoshan Iron & Steel (600019.SS)	O (01/16/2016)	Rmb5.84
Beijing New Building Materials (000786.SZ)	O (04/09/2024)	Rmb15.80
Beijing Oriental Yuhong Waterproof Techn (002271.SZ)	E (09/25/2024)	Rmb10.33
China Jushi (600176.SS)	O (12/22/2020)	Rmb44.66
China Lesso Group Holdings Ltd (2128.HK)	U (10/08/2025)	HK$3.20
China Steel Corp. (2002.TW)	U (12/16/2025)	NT$18.90
CMOC Group Ltd (3993.HK)	O (09/24/2019)	HK$16.00
CMOC Group Ltd (603993.SS)	O (06/21/2024)	Rmb18.15
CNGR Advanced Material Co., Ltd. (300919.SZ)	E (01/12/2026)	Rmb37.62
CNGR Advanced Material Co., Ltd. (2579.HK)	O (01/12/2026)	HK$23.00
FangDa Carbon New Material Co. Ltd. (600516.SS)	U (12/16/2024)	Rmb5.21
Ganfeng Lithium Co. Ltd. (002460.SZ)	O (04/20/2026)	Rmb46.67
Ganfeng Lithium Co. Ltd. (1772.HK)	O (12/16/2025)	HK$34.66
Grace Fabric Technology Co. Ltd. (603256.SS)	O (09/11/2026)	Rmb129.80
Henan Liliang Diamond Co. Ltd (301071.SZ)	U (04/20/2026)	Rmb60.30
Jiangsu Dingsheng New Materials (603876.SS)	U (04/20/2026)	Rmb19.07
Jiangxi Copper (0358.HK)	O (10/08/2025)	HK$34.96
Jiangxi Copper (600362.SS)	O (10/08/2025)	Rmb45.78
JL Mag Rare-Earth Co. Ltd (6680.HK)	O (04/23/2025)	HK$15.83
JL Mag Rare-Earth Co. Ltd (300748.SZ)	O (04/23/2025)	Rmb24.78
Nine Dragons Paper (2689.HK)	E (01/04/2023)	HK$6.30
PT Merdeka Gold Resources Tbk (6228.HK)	O (08/04/2026)	HK$39.18
Shandong Gold Mining Co. Ltd (600547.SS)	E (07/09/2026)	Rmb34.67
Shandong Gold Mining Co. Ltd (1787.HK)	E (07/09/2026)	HK$24.40
Shandong Nanshan Aluminium Co. (600219.SS)	E (07/08/2026)	Rmb4.82
Tianqi Lithium Industries Inc. (9696.HK)	O (12/16/2025)	HK$31.82
Tianqi Lithium Industries Inc. (002466.SZ)	O (04/20/2026)	Rmb43.00
Weixing New Building Materials (002372.SZ)	U (10/08/2025)	Rmb8.21
Zhaojin Mining Industry (1818.HK)	E (07/09/2026)	HK$21.30
Zijin Gold International (2259.HK)	O (11/06/2025)	HK$160.10
Zijin Mining Group (2899.HK)	O (11/06/2025)	HK$34.82
Zijin Mining Group (601899.SS)	O (11/06/2025)	Rmb32.26

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