

China Glass (3300 HK)

Expansion of TCO glass capacity to capture the growth of advanced solar cell technologies

China Glass held a conference call yesterday to share about the development of the new Transparent Conductive Oxides (TCO) coated glass production line. Key takeaways: (1) China Glass TCO glass technology and equipment are in-house developed with cost advantage; (2) The new TCO glass production line in Dongtai, Jiangsu, is expected to start product delivery in Apr; (3) China Glass plans to upgrade a total of five TCO production lines (out of the existing 14 float glass production lines), in order to capture the upcoming growth of CdTe (碲化鎘), HJT and Perovskite solar cell (鈣鈦礦). The annual capacity is expected to increase substantially to 80mn sq.m from the current level of ~18mn. This marks the transformation from a float glass maker to an advanced solar glass provider. We believe the ongoing CdTe solar cell capacity expansion by CNBM Group (parent company) will translate into strong demand for China Glass products.

- **What is TCO?** TCO provides the rare functional combination of being electrically conductive but also transparent. Such unique set of features make them available for a wide range of applications, including PV solar cells. There are three main types of TCO, namely Indium tin oxide (ITO), Aluminum doped zinc oxide (AZO) and Fluorine doped tin oxide (FTO). Due to various limitations of ITO and AZO, FTO is now the main solution for TCO glass. TCO glass accounts for 30%/40% of the production cost of CdTe solar cell/Perovskite solar cell.
- **TCO glass capacity on track.** China Glass has two TCO glass production lines at present, with daily melting capacity of 600t (Dongtai) and 500t (Weihai). The total annual capacity is ~18mn sq.m. Dongtai production line just commenced operation and product delivery is expected to be in Apr. There exists room of de-bottlenecking. For example, the annual capacity of Dongtai can potentially increase from the current level of 10mn sq.m to 15mn sq.m if the yield rate increases.
- **Strong potential demand from CNBM Group.** CNBM Group has already stepped into the field of CdTe solar cell with production capacities located in Chengdu, Handan and Ruichang. More production bases in Hunan, Heilongjiang, Sichuan, Henan, Anhui and Jiangsu are under construction. The TCO glass produced by China Glass will be sold to these solar cell companies at the beginning stage. For Perovskite solar cell, China Glass has already in talks with GCL and Hangzhou Microquanta for cooperation.
- **Competitive cost level.** China Glass has the capability to produce in-house equipment with the modular design. Besides, China Glass has the unique technology to recycle certain compounds during the production process. All these help China Glass lower the production cost. China Glass is able to achieve unit cost of RMB38-39/sq. m at present, while the ASP is ~RMB56 (for 3.2mm product).

NOT RATED

Current Price

HK\$1.32

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Stock Data

Mkt Cap (HK\$ mn)	2,424
Avg 3 mths t/o (HK\$ mn)	3.6
52w High/Low (HK\$)	4.50/0.34
Total Issued Shares (mn)	1,830

Source: Bloomberg

Shareholding Structure

Triumph Science & Technology Group*	22.68%
Legend Holdings	16.77%
Sze Tan Hung	8.96%

*Note: Owned by CNBM Group

Source: HKEx

Share Performance

	Absolute	Relative
1-mth	62.4%	57.8%
3-mth	91.7%	43.0%
6-mth	17.9%	10.0%

Source: Bloomberg

12-mth Price Performance



Source: Bloomberg

Auditor: KPMG

Related report:

China Glass – 1H21 earnings in line with expectations; eye on potential M&A -30 Aug 2021 ([link](#))

China Glass – Takeaways from investor conference call – 6 Jul 2021 ([link](#))

Earnings Summary

(YE 31 Dec)	FY19A	FY20A	FY21A
Revenue (RMB mn)	2,369	3,159	5,065
YoY growth (%)	-9.5	33.3	60.4
Net income (RMB mn)	83	-85	736
EPS (RMB)	0.049	-0.051	0.442
YoY growth (%)	-10.6	n/a	n/a
Consensus EPS (RMB)	n/a	n/a	n/a
EV/EBITDA (x)	13.9	12.9	4.3
P/E (x)	24.4	-21.9	2.5
P/B (x)	1.0	1.0	0.8
Yield (%)	0.0	0.0	8.2
ROE (%)	4.0	-4.1	31.6
Net gearing (%)	116.8	121.5	122.8

Source: Company data, Bloomberg, CMBIGM estimates

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