MEC CO., LTD (4971 JP)

FY23 GUIDANCE EXPECTS RECOVERY IN 2H. A RISK LIES WITH SERVER DEMAND REBOUND.

FY22 RESULTS SUMMARY

MEC (4971 JP) reported FY22 (Dec year-end) earnings with OP of ¥4,004 mil (+1.6% YoY) on sales of ¥16,329mil (+8.6% YoY). Sales and OP fell short of company guidance by 3.9% and 9.0% respectively, due to 1) sales of EXE – an etching chemical used in COF (chip-on-film) used in displays – not recovering as expected in Q4 as TV and smartphone makers adjusted their inventory levels, and 2) lacklustre CZ series sales for packages on weak demand for end applications such as PCs, smartphones and tables PCs.

Demand for PCs, displays, and tablets, which had surged during COVID closures, have run their course. Additionally, although demand for servers had been strong up to Q3, sales of high-end packages used in servers started to trend down in Q4 on the back of inventory adjustments. As a result, CZ-8101 – MEC's core product in adhesion enhancing chemicals – was not able to renew another record level in quarterly sales. Sales of CZ-8101 were also affected by weak sales of memory packages due to excess inventory of smartphones and PCs. In Q4 alone, OP fell -14.3% QoQ to ¥886mil (+12.6% YoY) on sales of ¥3,965mil (+2.2% YoY / -6.4% QoQ).

Earnings Summary (Cumulative)

(¥mil)	FY21	FY22				
	FY	1H	FY	YoY (%)	FYCE	vs. CE (%)
Sales	15,038	8,127	16,329	8.6	17,000	-3.9
incl. Chemicals	14,756	8,032	16,042	8.7	N/A	N/A
GP	9,323	4,919	9,803	5.2	N/A	N/A
GPM (%)	62.0	60.5	60.0	-2.0ppt	N/A	N/A
SG&A	5,383	2,834	5,799	7.7	N/A	N/A
SG&A/Sales (%)	35.8	34.9	35.5	-0.3ppt	N/A	N/A
OP	3,939	2,084	4,004	1.6	4,400	-9.0
OPM (%)	26.2	25.6	24.5	-1.7ppt	25.9	-1.4ppt
RP	4,104	2,374	4,246	3.5	4,800	-11.5
RPM (%)	27.3	29.2	26.0	-1.3ppt	28.2	-2.2ppt
NP	2,949	1,661	3,064	3.9	3,400	-9.9
EPS (¥)	155.28	87.4	161.22	N/A	178.87	-9.9
DPS (¥)	35.00	20.00	45.00	N/A	45.00	0.0

Source: Nippon-IBR based on MEC's results presentation materials

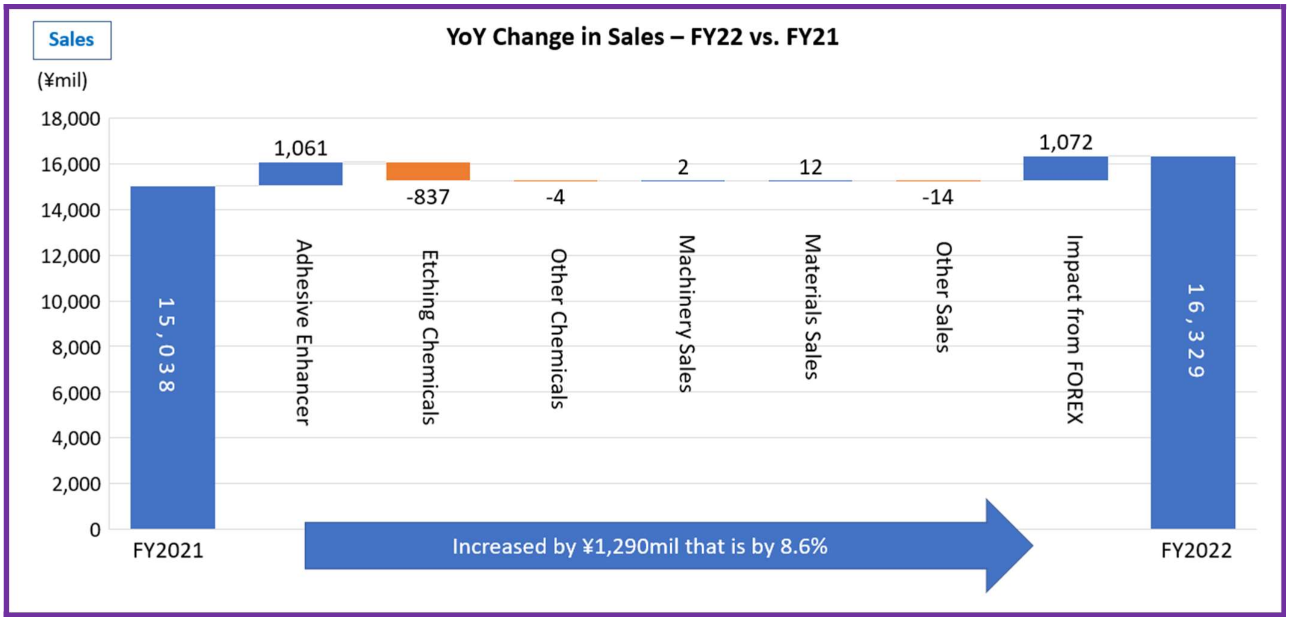
With regards to the weak yen, MEC's earnings are more sensitive to the Taiwanese dollar [NTD] (a change of ¥0.1/NT impacted sales by ¥79mil and OP by ¥54mil in FY22) and the Chinese Yuan (a change of ¥0.1/RMB impacted sales by ¥25mil and OP by ¥12mil). For FY22, the weaker yen added +¥1,072mil to sales and +¥618mil to OP.

Chemical sales, which constitutes nearly 98% of the firm's total revenue, rose +8.7% YoY to ¥16,042mil in FY22. While FY22 sales of Adhesive Enhancer chemicals increased +19.2% YoY (+¥1,842mil) thanks to solid sales of CZ series products, Etching Chemicals sales fell -13.4% YoY (-¥588mil) due to the

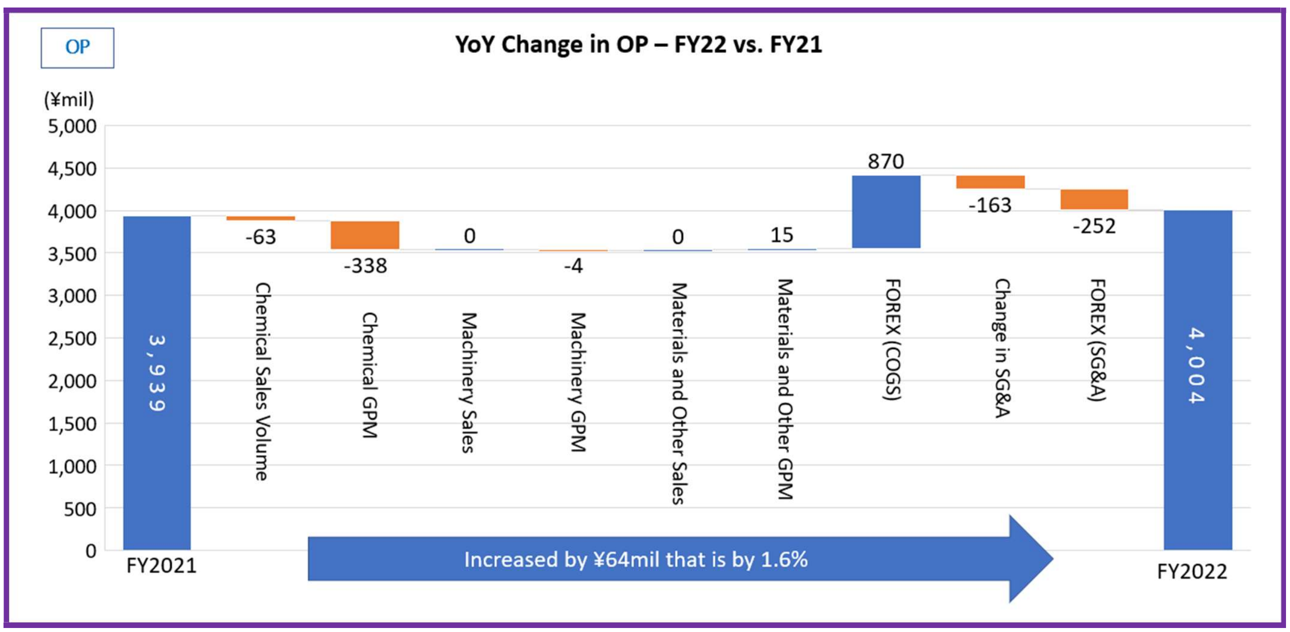
EXECUTIVE SUMMARY

- MEC's (4971 JP) FY22 (Dec year-end) sales (¥16,329mil, +8.6% YoY) and OP (¥4,004mil, +1.6% YoY) fell short of company guidance by 3.9% and 9.0%, respectively.
- Reasons for shortfall are 1) sales of EXE, an etching chemical used in COF (chip-on-film) did not recover in 2H, 2) sales of CZ series chemicals peaked as production adjustments of end applications such as servers, PCs, and smartphones took place.
- Having hit a record level of quarterly sales in Q3, Q4 sales of MEC's core adhesive enhancing chemical, CZ-8101, fell -12.8% QoQ to ¥1,276mil (+2.6% YoY).
- MEC is guiding for full year FY23 OP of ¥3,000mil (-25.1% YoY) on sales of ¥15,000mil (+8.1% YoY) – with 1H OP of ¥800mil (-61.6% YoY) on sales of ¥6,500mil (-20.0% YoY), and 2H OP of ¥2,200mil (+14.6% YoY) on sales of ¥8,500mil (+3.6% YoY) – with the following assumptions:
  1. Sales of Etching Chemicals, SF and EXE will remain weak.
  2. Server demand will not recover until 2H, which will affect the package production during 1H.
  3. V-Bond will also see YoY decline for the full year due to weakness in demand for packages used in automobiles and middle-end smartphones.
- MEC has maintained its annual dividend payment of ¥45/share. Based on the FY23 EPS estimate, the dividend pay-out ratio will be 38.9%. In the past, MEC has repurchased shares when the stock has slumped.
- Production capacity expansion at the Nagaoka and Zhuhai (China) facilities has boosted overall capacity by 10%. MEC plans to further expand capacity at the Suzhou (China) plant in FY23.

expected decline in sales of SF (-17.2% YoY) and weaker-than-expected sales of EXE (-33.1% YoY). As a result, FY22 gross profit margin [GPM] contracted by 2ppt YoY to 60.0% on the back of the deterioration in sales mix, which reduced the OP for chemical products by ¥338mil. COGS expanded +14.1% YoY (+¥810mil) in FY22 due to 1) costs associated with higher sales and the change in sales mix, 2) the rise in costs (raw materials / labour / overheads), and 3) the weaker yen.



Source: MEC Co., Ltd. FY22 earnings results presentation



Source: MEC Co., Ltd. FY22 earnings results presentation

SEGMENTS PERFORMANCE

Adhesive Enhancers

FY22 sales of Adhesive Enhancers increased +19.2% YoY to a new annual record level of ¥11,457mil as CZ series sales produced another record level, surpassing the ¥10,000mil mark with ¥10,313mil (+21.7% YoY). The firm's core product in this product group, CZ-8101 – an adhesive-enhancing chemical used in packages primarily for PCs, servers and chiplet packaging – also reported another record in annual sales, rising +20.4% YoY to ¥5,426mil.

The main growth driver behind the strong CZ-8101 sales has been the rising demand for packages used in servers and base stations, bolstered by the increase in data transmission as the penetration of 5G communication progresses. However, although MEC's CZ-8101 sales were strong up to Q3, demand turned down in Q4 due to (1) production adjustments in packages as demand for PCs and smartphones waned, and (2) a temporary adjustment in demand for servers.

As a result, in Q4 alone, Adhesive Enhancer chemical sales fell -9.0% QoQ to ¥2,797mil (+6.6% YoY), with CZ series sales down -9.6% QoQ to ¥2,517mil (+9.7% YoY). However, sales of CZ-8101, which reported record quarterly sales in Q3, contracted -12.8% QoQ to ¥1,276mil (+2.6% YoY).

In addition, Other CZ Chemicals, which include chemicals used pre- and post- the adhesive processes, also achieved record annual sales of ¥3,602mil (+31.3% YoY) in FY22. During Q1~Q3 period, demand for these adhesive chemicals had benefited from the rise in demand from package makers as they are used to raise the density of packages used in servers, particularly as they have become larger and therefore have more layers. However, in Q4, sales peaked, falling -5.3% QoQ to ¥928mil (+24.2% YoY). Sales of the newer generation of the CZ series, CZ-8201 and CZ-8401, are also included in this category.

The CZ-8100 product, which is partly used in packages for auto components, had also reported record annual sales of ¥1,284mil (+4.8% YoY) in FY22, despite the semiconductor and components shortage affecting auto production. Although MEC had expected the semiconductor shortage-led slowdown in auto production to have some negative impact on CZ-8100 demand, it was offset by a rise in the number of semiconductors used per car as automakers continue to increase their EV model line-up. However, in Q4 alone, sales declined -7.9% QoQ to ¥313mil (+3.6% YoY), partly on the back of a slower-than-expected recovery in auto production.

V-Bond, another adhesive-enhancing chemical used in multilayer substrates for autos and mid-end smartphones, reported FY22 sales of ¥790mil (-3.3% YoY). In Q4 alone, V-Bond sales fell -19.4% YoY / -1.0% QoQ to ¥187mil.

Etching Chemicals

MEC report FY22 Etching Chemicals sales fell -13.4% YoY to ¥3,810mil due to 1) a 33.1% YoY decline in sales of EXE, another of MEC's etching chemical products used in chip-on-film [COF] as display production as several TV display makers entered an inventory adjustment phase – the degree of which was more drastic and slower in recovery than MEC had thought, and 2) weak SF sales (¥876mil -17.2%), a key material used in displays, as the new models of high-end smartphones now use a different technology. However, this technology shift had already been factored in by the company.

Chemical Sales by Products (Cumulative)

(¥mil / Dec year-end)	FY21				FY22				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	YoY (%)
Copper surface treatment chemicals	3,278	6,579	10,393	14,014	3,695	7,626	11,607	15,267	8.9
Adhesive enhancer (CZ,V-Bond etc.)	2,150	4,366	6,990	9,615	2,676	5,587	8,660	11,457	19.2
CZ Series Total	1,906	3,870	6,183	8,477	2,403	5,012	7,796	10,313	21.7
CZ-8100	301	611	923	1,225	315	631	971	1,284	4.8
CZ-8101	1,026	2,064	3,263	4,507	1,276	2,686	4,150	5,426	20.4
Other CZ chemicals	579	1,195	1,997	2,744	811	1,694	2,674	3,602	31.3
Etching chemicals (EXE, SF etc.)	1,128	2,212	3,402	4,398	1,019	2,039	2,947	3,810	-13.4
SF	326	567	848	1,058	204	450	684	876	-17.2
EXE	407	856	1,299	1,617	360	668	855	1,081	-33.1
Other surface treatment chemicals	174	352	545	736	202	404	604	770	4.6
Chemical Sales Total	3,452	6,932	10,940	14,756	3,898	8,032	12,213	16,042	8.7

Source: Nippon-IBR based on MEC's earnings presentation materials

Chemical Sales by Products (Quarterly)

(¥mil / Dec year-end)	FY21				FY22					
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	QoQ (%)	YoY (%)
Copper surface treatment chemicals	3,278	3,301	3,814	3,621	3,695	3,931	3,981	3,660	-8.1	1.1
Adhesive enhancer (CZ, V-Bond etc.)	2,150	2,216	2,624	2,625	2,676	2,911	3,073	2,797	-9.0	6.6
CZ Series Total	1,906	1,964	2,313	2,294	2,403	2,609	2,784	2,517	-9.6	9.7
CZ-8100	301	310	312	302	315	316	340	313	-7.9	3.6
CZ-8101	1,026	1,038	1,199	1,244	1,276	1,410	1,464	1,276	-12.8	2.6
Other CZ chemicals	579	616	802	747	811	883	980	928	-5.3	24.2
Etching chemicals (EXE, SF etc.)	1,128	1,084	1,190	996	1,019	1,020	908	863	-5.0	-13.4
SF	326	241	281	210	204	246	234	192	-17.9	-8.6
EXE	407	449	443	318	360	308	187	226	20.9	-28.9
Other surface treatment chemicals	174	178	193	191	202	202	200	166	-17.0	-13.1
Chemical Sales Total	3,452	3,480	4,008	3,814	3,898	4,134	4,181	3,827	-8.5	0.3

Source: Nippon-IBR based on MEC's earnings presentation materials

FY23 OUTLOOK

MEC is guiding for FY23 OP of ¥3,000mil (-25.1% YoY) on sales of ¥15,000mil (-8.1% YoY), with 1H OP of ¥800mil (-61.6% YoY) on sales of ¥6,500mil (-20.0% YoY) and 2H OP of ¥2,200mil (+14.6% YoY) on sales of ¥8,500mil (+3.6% YoY). MEC's guidance is based on the following assumptions:

1. Weak sales of Etching Chemicals, SF and EXE.
2. Although semiconductor makers announced plans to start full production of a next generation processor in CY23, the firm does not expect server demand to recover until 2H, which will affect 1H package production levels.
3. V-Bond sales will also decline due to weakness in demand for multilayer substrates used in automobiles and middle-end smartphones.

FY23 guidance

(¥mil)	FY22	FY23			
	FY	1HCE	YoY (%)	FYCE	YoY (%)
Sales	16,329	6,500	-20.0	15,000	-8.1
Operating Profit [OP]	4,004	800	-61.6	3,000	-25.1
OP Margin [OPM] (%)	24.5	12.3	-13.3pp	20.0	-4.5pp
Recurring Profit [RP]	4,246	850	-64.2	3,100	-27.0
NP for the parent's s/holders	3,064	600	-63.9	2,200	-28.2
EPS (¥)	161.22	31.56	n/a	115.72	-28.2

Source: Nippon-IBR based on MEC Co., Ltd.'s FY22 Earnings Results Material

Adhesive Enhancers

MEC assumes a short-term down trend in the segment performance. In 1H, the firm expects the weak semiconductor market will affect CZ chemical sales. Although chiplet package production was said to have started in FY22, package production was affected by inventory adjustments. In 2H, MEC expects demand for its core product, CZ-8101, to recover on the back of a rebound in server demand. Moreover, the new processor for servers is said to deploy chiplet technology that requires die-stacking and larger size packages, such as EMIB, and will likely further boost package makers' demand for adhesive chemicals. MEC forecasts FY23 CZ chemicals sales of ¥9,962mil (-3.4% YoY).

For V-Bond, MEC is guiding for a -17.1% YoY decline in sales to ¥655mil as the firm expects continued weakness in auto production and it anticipates further inventory adjustments of auto parts. Additionally, given the current macroeconomic climate, demand for smartphones is expected to be weak.

Etching Chemicals

Etching Chemicals will likely remain weak during FY23. MEC assumes SF sales to high-end smartphones will continue to decline due to the well-flagged shift to another technology, although demand for tablet PC displays will remain stable. Sales of EXE used in chip-on-film [COF] will also likely be affected by inventory adjustments at display makers. MEC estimates FY23 sales of SF to fall -18.7% YoY to ¥712mil and EXE sales to decline -22.9% to ¥833mil. A risk to the FY23 guidance is whether server demand will recover in 2H.

Capital Allocation Policy

CAPEX: Given the continued strength in demand for CZ chemicals, MEC boosted production capacity at the Nagaoka (Japan) and Zhuhai (China) factories in FY22. This raised the group's total production capacity by 10%. In addition, the firm plans to expand production capacity at its facility in Suzhou, Jiangsu Province, China in FY23.

MEC had budgeted for FY22 CAPEX of ¥1,324mil but it only spent ¥698mil as the shortage of parts and components for production machinery led to some of the CAPEX to be pushed into FY23. For FY23, the firm has allocated ¥1,763mil for CAPEX, of which approx. ¥400mil will be spent on the Suzhou plant expansion. Depreciation costs are estimated to rise from ¥759milin FY22 to ¥827mil in FY23. In addition, MEC is preparing to commence production in FY25 to meet the expected rapid surge in demand for CZ chemicals as this is when package makers start full mass production of packages using chiplet packaging such as EMIB. Until then, MEC aims to meet the rising demand by expanding its existing capacity and increasing work shifts.

Shareholder Return: MEC has maintained its annual dividend payment of ¥45/share. Based on the FY23 EPS estimate of ¥115.72, the dividend pay-out ratio will be 38.9%. Management's target is to achieve a dividend pay-out ratio of at least 30% under the ongoing medium-term management plan. In the past, MEC has repurchased shares when the stock price plummeted.

MEC is currently in the first year of its three-year medium-term management plan. For details of the Plan, please visit to our previous research report at https://nippon-ibr.com/research-coverage-2/.

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