MEC CO., LTD (4971 JP)

SALES MIX WORSENED DUE TO WEAKER-THAN- EXPECTED HIGH MARGIN PRODUCT. BUT NO CHANGE IN FY22 GUIDANCE

FY22 Q3 RESULTS SUMMARY

MEC (4971 JP) reported FY22 (Dec year-end) cumulative Q3 (Jan~Sep 2022) earnings with OP of ¥3,118mil (-1.1% YoY) on sales of ¥12,364mil (+10.8% YoY). The OP decline is due to weak sales of EXE, an etching chemical used in COF (chip-on-film) used in displays, on the back of inventory adjustments by TV makers. Demand for PCs, displays, and tablets, which had surged during COVID closures, have run their course. On the other hand, demand for servers remained strong, resulting in another record quarterly sales of CZ-8101, MEC's core product in adhesion enhancing chemicals. Continued strength in the sale of MEC's core chemical products were supported mainly by increased demand for high-end package substrates loaded with semiconductors, as demand for data centre servers remains robust.

Earnings Summary (Cumulative)

(¥mil)	FY22					
	1H		FY			
	Q1	1H	Q3	YoY (%)	FYCE	YoY (%)
Sales	3,955	8,127	12,364	10.8	17,000	13.0
incl. Chemicals	3,898	8,032	12,214	11.6	N/A	N/A
GP	2,428	4,919	7,414	5.3	N/A	N/A
GPM (%)	61.4	60.5	60.0	-3.1pp	N/A	N/A
SG&A	1,377	2,834	4,295	10.5	N/A	N/A
SG&A/Sales (%)	34.8	34.9	34.7	-0.1pp	N/A	N/A
OP	1,051	2,084	3,118	-1.1	4,400	11.7
OPM (%)	26.6	25.6	25.2	-3.1pp	25.9	-0.3pp
RP	1,186	2,374	3,438	6.8	4,800	16.9
RPM (%)	30.0	29.2	27.8	-1.1pp	28.2	-0.9pp
NP	793	1,661	2,382	4.3	3,400	15.3
EPS (¥)	41.76	87.4	125.35	4.2	178.87	15.2
DPS (¥)	n/a	20.00	n/a	n/a	45.00	28.6

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

With regards to the weak yen, MEC's earnings are more sensitive to the Taiwanese dollar (a change of ¥0.1/NT impacted sales by ¥60mil and OP by ¥40mil in Q1~Q3) and the Chinese Yuan (a change of ¥0.1/RMB will impact sales by ¥19mil and OP by ¥9mil). For the cumulative 9-month period, the weaker yen added +¥870mil to sales and +¥486mil to OP.

Chemical sales, which constitutes nearly 98% of the firm's total sales, rose +11.6% YoY to ¥12,214mil in Q1~Q3. In Q3 alone, sales of EXE fell -57.8% YoY / -39.3% QoQ to ¥187mil, which led to Q3 GPM to fall 0.8ppt QoQ to 58.9%. For Q1~Q3, COGS rose ¥833mil (+20.2% YoY), of which 1) approx. 45% was for costs associated with higher sales and a change in sales mix, 2) approx. 30% from the rise in costs (raw materials / labour / overheads), and a temporary production shift to Japan from the firm's plant in Suzhou, China, and 3) approx. 25% due to the weaker yen.

EXECUTIVE SUMMARY

- MEC's (4971 JP) reported FY22 (Dec year-end) 9-month (Jan~Sep 2022) OP of ¥3,118mil (-1.1% YoY) on sales of ¥12,364mil (+10.8% YoY). The 9-month sales were in line with the company guidance; however, the OP decline was due to weak sales of high margin EXE.
- On the other hand, FY22 Q3 Adhesive Enhancer sales hit a new record for the quarter of ¥3,073mil (+17.1% YoY / +5.6% QoQ). CZ series sales of ¥2,784mil (+20.4% YoY / +6.7% QoQ) were yet another record level. MEC's core product, CZ-8101, an adhesive-enhancing chemical used in packages primarily for servers and chiplet packaging, also achieved another record in quarterly sales of ¥1,464mil (+22.1% YoY / +3.8% QoQ).
- MEC maintained its full-year FY22 guidance for OP of ¥4,400mil (+11.7% YoY) on sales of ¥17,000mil (+13.0% YoY). With Q3 OP short of the firm's target, FY22 guidance now appears stretched. That said, MEC has kept its guidance unchanged based on the following reasons:

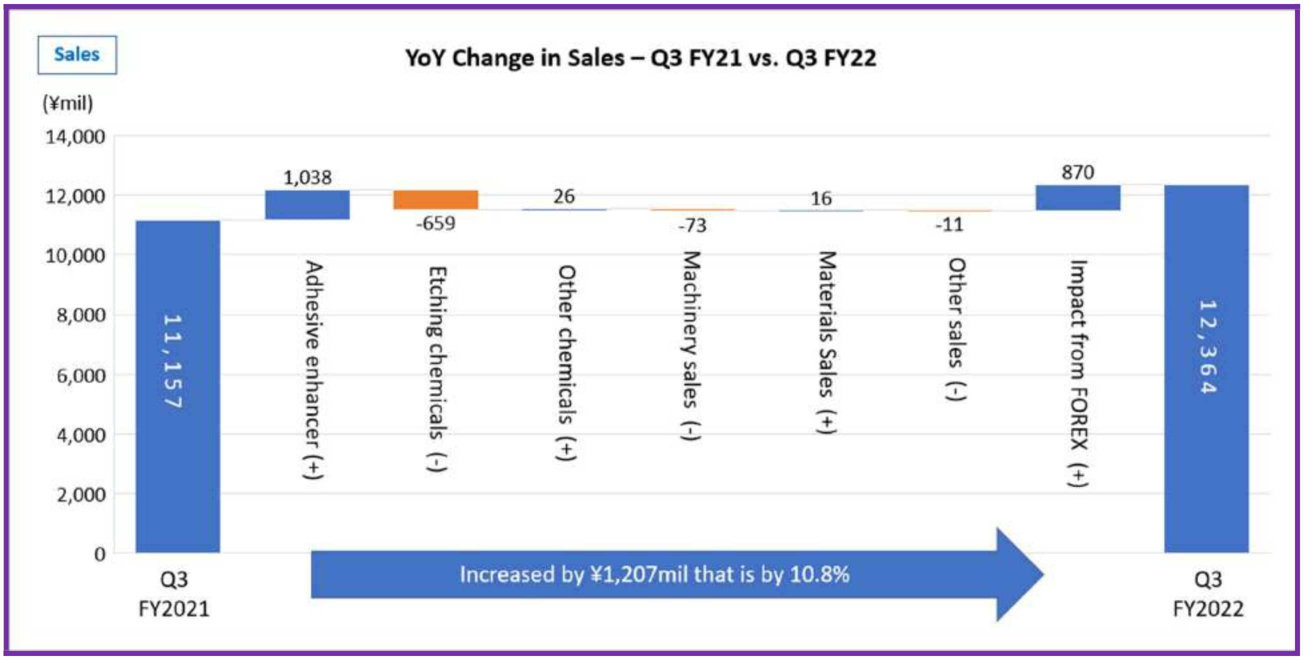
1) EXE sales bottomed in Q3 and are expected to recover in Q4
2) Full-fledged production under the chiplet method will likely start in CY23, which will further boost package makers' demand for CZ-8101 in Q4
3) The impact from CZ series price hikes will contribute to earnings from Q4.

- MEC has maintained its dividend payment of ¥45/share. Based on the revised FY22 EPS estimate, the dividend pay-out ratio will be 25%.
- To meet the rising demand for CZ chemicals, capex over FY22~FY23 will be spent to expand MEC's existing capacity at Amagasaki and Nagaoka plants by 40%.

GP declined 1.1% YoY (-¥33mil) to ¥3,118mil. The largest negative factor to the weaker OP was the deterioration in the GPM of chemical products which reduced OP by ¥547mil in Q1~Q3.

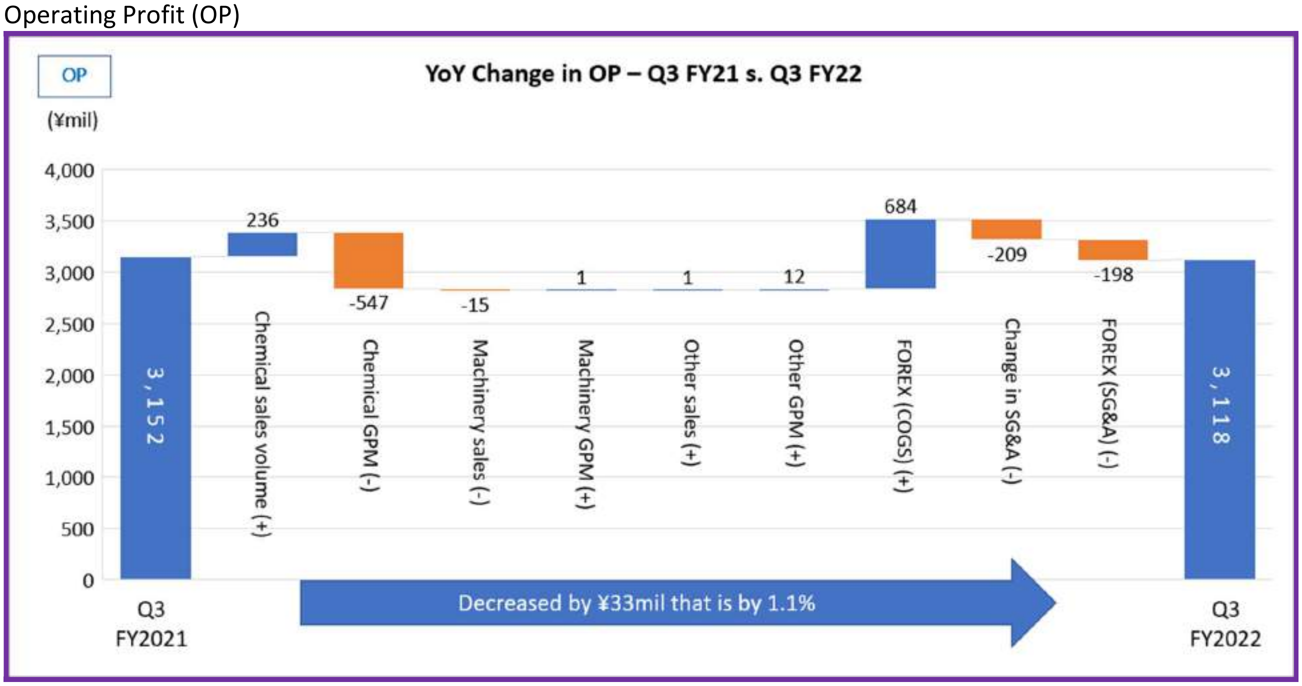
Although sales of high margin EXE fell short of the firm's Q3 sales forecast, MEC maintained its FY22 guidance, which had been revised at the time of 1H results, on the back of 1) continued strength in sales of CZ series, and 2) positive contributions from being able to pass on higher raw materials cost to CZ series prices – MEC had begun negotiations with customers from July. The impact of price review will likely appear from Q4 onwards.

Sales



Source: MEC Co., Ltd. FY22 Q3 earnings results presentation

Operating Profit (OP)



Source: MEC Co., Ltd. FY22 Q3 earnings results presentation

SEGMENTS

Adhesive Enhancers

FY22 Q3 Adhesive Enhancer sales hit a new record for the quarter of ¥3,073mil (+17.1% YoY / +5.6% QoQ)m, with CZ series sales producing another record level in sales of ¥2,784mil (+20.4% YoY / +6.7% QoQ). 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 quarterly sales, hitting ¥1,464mil (+22.1% YoY / +3.8% QoQ). 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.

In addition, Other CZ Chemicals, which include chemicals used pre- and post- the adhesive processes, also achieved record quarterly sales of ¥980mil (+22.2% YoY / +11.0% QoQ). Demand for these adhesive chemicals also benefited from the higher 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. A newer generation of the CZ series, CZ-8201 and CZ-8401, is also included in this category.

The CZ-8100 product, which is partly used in packages for auto components, also reported record quarterly sales 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. Q3 sales hit a new record of ¥340mil (+9.0% YoY / +7.6% QoQ).

V-Bond, another adhesive-enhancing chemical used in multilayer substrates for autos and mid-end smartphones, reported quarterly sales of ¥189mil (-8.2% YoY / -7.3% QoQ).

Etching Chemicals

FY22 Q3 sales of Etching Chemicals were ¥908mil (-23.2% YoY / -11.0% QoQ). The segment saw a YoY decline in sales due to 1) EXE, another of MEC's etching chemical products used in chip-on-film [COF], saw Q3 sales of ¥187mil (-57.8% YoY / -39.3% QoQ) due to a slowdown in display production as several TV display makers entered an inventory adjustment phase – the degree of which was more drastic than MEC had thought, and 2) weak SF sales, a key material used in touch panel sensors, of ¥235mil (-16.7% YoY / -4.9% QoQ). As the new models of high-end smartphones no longer use touch panel sensors, Q1~Q3 sales of SF fell 19.3% YoY to ¥685mil YoY, though this technology shift had already been factored in by the company.

Chemical Sales by Products (Quarterly)

(¥mil / Dec year-end)	FY20				FY21				FY22				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	QoQ (%)	YoY (%)
Copper surface treatment chemicals	2,550	2,701	2,824	3,069	3,278	3,301	3,807	3,621	3,695	3,931	3,981	1.3	4.6
Adhesive enhancers (CZ, V-Bond etc.)	1,720	1,695	1,828	1,970	2,150	2,216	2,624	2,625	2,676	2,911	3,073	5.6	17.1
CZ Series Total	1,507	1,491	1,562	1,700	1,906	1,964	2,313	2,294	2,403	2,609	2,784	6.7	20.4
CZ-8100	246	225	264	314	301	310	312	302	315	316	340	7.6	9.0
CZ-8101	787	820	822	865	1,026	1,038	1,199	1,244	1,276	1,410	1,464	3.8	22.1
Other CZ chemicals	474	446	476	521	579	616	802	747	811	883	980	11.0	22.2
Etching chemicals (EXE, SF etc.)	830	1,006	996	1,099	1,128	1,084	1,183	996	1,019	1,020	908	-11.0	-23.2
SF	182	298	247	362	326	241	281	210	204	246	235	-4.8	-16.4
EXE	301	362	316	326	407	449	443	318	360	308	187	-39.3	-57.8
Other surface treatment chemicals	109	127	121	91	174	178	193	191	202	202	200	-1.0	3.6
Chemical Sales Total	2,661	2,829	2,946	3,160	3,452	3,480	4,008	3,814	3,898	4,134	4,181	1.1	4.3

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

Chemical Sales by Products (Cumulative)

(¥mil / Dec year-end)	FY20				FY21				FY22			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	YoY (%)
Copper surface treatment chemicals	2,550	5,251	8,075	11,146	3,278	6,579	10,386	14,007	3,695	7,626	11,607	11.8
Adhesive enhancers (CZ, V-Bond etc.)	1,720	3,415	5,243	7,213	2,150	4,366	6,990	9,615	2,676	5,587	8,660	23.9
CZ Series Total	1,507	2,998	4,560	6,260	1,906	3,870	6,183	8,477	2,403	5,012	7,796	26.1
CZ-8100	246	471	735	1,049	301	611	923	1,225	315	631	971	5.2
CZ-8101	787	1,607	2,429	3,294	1,026	2,064	3,263	4,507	1,276	2,686	4,150	27.2
Other CZ chemicals	474	920	1,396	1,917	579	1,195	1,997	2,744	811	1,694	2,674	33.9
Etching chemicals (EXE, SF etc.)	830	1,836	2,832	3,931	1,128	2,212	3,395	4,391	1,019	2,039	2,947	-13.2
SF	182	480	727	1,089	326	567	848	1,058	204	450	684	-19.3
EXE	301	663	979	1,305	407	856	1,299	1,617	360	668	855	-34.2
Other surface treatment chemicals	109	236	357	448	174	352	545	736	202	404	604	10.8
Chemical Sales Total	2,661	5,490	8,436	11,596	3,452	6,932	10,940	14,756	3,898	8,032	12,213	11.6

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

FY22 OUTLOOK

MEC maintained its full-year FY22 guidance for OP of ¥4,400mil (+11.7% YoY) on sales of ¥17,000mil (+13.0% YoY). With Q3 OP falling short of the firm's target, FY22 guidance appears to be a challenge. MEC maintained its guidance based on the following assumptions:

1. Sales of EXE would bottom in Q3 and will see a recovery in Q4
2. A chip maker announced it plans start full-fledged production of a next generation processor in CY23. The new processor is said to deploy a die-stacking, chiplet technology such as EMIB, and will likely further boost package makers' demand for CZ-8101 in Q4
3. Passing through cost increase to price for CZ series will contribute to earnings from Q4.

MEC has already factored in a rise of ¥654mil (vs the previous estimate of ¥630mil) in FY22 COGS, largely due to higher personnel and raw material costs. The firm plans to tackle this by boosting sales volumes, which is reflected in the full-year guidance. Demand for semiconductor packages will likely remain strong. Moreover, as packages gradually shift to mass production under the chiplet packaging method, this enables the size of a package for a server to be larger and able to have more layers, thus requiring around eight times more CZ chemicals per package than current levels.

Adhesive Enhancers

Thanks to the continued strength in demand for CZ-8101, bolstered by strong demand for servers and the associated strength in demand for semiconductor packages, FY22 annual sales of CZ series will likely surpass ¥10,000mil for the first time. Growth will be led by CZ-8101, whose FY22 sales are expected to reach ¥5,619mil (+24.6% YoY). Furthermore, thanks to an increase in the number of semiconductors used per vehicle, CZ-8100 is also forecast to reach another record level in annual sales of ¥1,346mil (+9.7% YoY).

For V-Bond, although management does anticipate the normalisation of auto production, as the component shortage problems are gradually solved, management remain conservative, guiding for FY22 sales of ¥843mil (+3.2% YoY).

Etching Chemicals

MEC assumes SF sales will decline -12.4% YoY to ¥929mil. The firm had already factored in a gradual decline in SF sales as new versions of high-end smartphones will no longer require touch panel sensors, for which SF is used. Furthermore, the semiconductor shortage continues to affect production volumes of tablet devices, which might potentially impact SF sales as well.

MEC revised down its FY22 EXE sales forecast – used in Chip-on-Film [COF] for TVs, displays and mid-range smartphones (Chinese makers) – from ¥1,791mil (+10.8% YoY) to ¥1,414mil (-12.6% YoY) at the time of 1H earnings results. The firm reckons that the EXE sales will likely also fall short of the revised forecast given the lower-than-expected Q3 sales. The firm assumes demand for displays will bottom out in Q4, however, there is no evidence yet of a recovery.

Applications and trend for MEC's main chemicals (¥mil)

Chemicals	Applications	Trend	FY20	FY21 Result	FY22CE (Old)	FY22CE (New)	YoY (%)
CZ series	PC, Tablets, Servers, AiP, packages for autos.	Since FY20, there has been strong demand for servers due to an increase in demand for tablets and laptops due to a rise in remote work and distant learning. The expansion of 5G infrastructure, which requires more servers, will help boost CZ-8101 sales. CZ-8101 is partly used in chiplet technology such as EMIB. The newer generation CZ-8201 is also used in chiplet technology.	6,260	8,477	9,969	10,555	24.5
EXE	COF (Chip-on-Film) for TV, smartphones, and tablets.	FY20 sales were led by rising tablet and laptop demand. FY21 growth relies on a recovery in Chinese smartphone production.	1,305	1,617	1,791	1,414	-12.6
V-Bond	Pre-lamination treatment for multilayer substrates. Used in packages for autos and middle-end smartphones	Sales to recover in line with automotive and Chinese smartphone production	668	817	827	843	3.2
SF	Touch panel sensor	Decline in sales from smartphone displays expected as new technologies have eliminated the need for sensors.	1,089	1,058	916	929	-12.2

Source: Nippon-IBR

Capital Allocation Policy

MEC has maintained its dividend payment of ¥45/share. Based on the revised FY22 EPS estimate, the dividend pay-out ratio will be 25%. Management's target is to achieve a dividend pay-out ratio of 30% under the ongoing medium-term management plan. Due to the continued strength in demand for CZ chemicals, MEC plans to increase existing capacity of two factories in Japan, Amagasaki, and Nagaoka, by 40% over FY22 and FY23. In addition, there are plans to spend an even larger amount in CAPEX in FY25 to meet the expected surge in demand for CZ chemicals when package makers fully start mass production of packages using chiplet packaging such as EMIB. Until then, MEC aims to meet increasing demand by expanding its existing capacity and increasing work shifts.

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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For further enquiry, please contact:

Nippon Investment Bespoke Research UK Ltd
118 Pall Mall
London SW1Y 5EA
TEL: +44 (0)20 7993 2583
Email: enquiries@nippon-ibr.com

Research Beyond Horizons
Japanese Equity Specialist

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