# **MEC CO., LTD (4971 JP)**

ANOTHER STRONG QUARTERLY PERFORMANCE LED TO UPWARD REVISION BUT THE FIRM REMAINS CONSERVATIVE FOR Q4

# **FY21 Q3 RESULTS SUMMARY**

MEC (4971 JP) reported another impressive performance in FY21 (Dec year-end) Q3 earnings. The cumulative 9-month Q1~Q3 operating profit [OP] surged 71.7% YoY to ¥3,152mil on sales of ¥11,157mil (+27.8% YoY) thanks to (1) continued strength in chemical products sales supported by the steady sales of devices, such as PC and tablets, and (2) a boost in demand for package substrates loaded with semiconductors as demand for servers increased. Chemical sales, which constitutes nearly 98% of the firm's total sales, reached ¥10,941mil (+29.7% YoY). The change in sales mix, discussed further below, resulted in a substantial 7.3ppt YoY improvement in OPM to 28.3% for the 9-month period.

Having revised up the full-year FY21 guidance at the Q2 release on 10 Aug, the continued strong performance has led the firm to revise up again. The firm is now eyeing OP of  $\pm 3,750$ mil ( $\pm 58.2\%$  YoY) on sales of  $\pm 14,600$ mil ( $\pm 22.1\%$  YoY), up from the previous forecast of OP of  $\pm 3,500$ mil ( $\pm 47.7\%$  YoY) and sales of  $\pm 14,000$ mil ( $\pm 17.1\%$  YoY). The new full year forecast, however, implies a conservative Q4 with OP falling  $\pm 50.3\%$  QoQ to  $\pm 598$ mil on sales of  $\pm 3,443$ mil ( $\pm 16.7\%$  QoQ).

| Change in FY21 Q1~Q3 (cumulative) & FY guidance                        |                    |         |               |               |               |  |  |  |  |
|--|--------------------|---------|---------------|---------------|---------------|--|--|--|--|
|  | FY21               |         |               |               |               |  |  |  |  |
| (¥mil )  | Q1~Q3<br>(Results) | YoY (%) | FY21CE<br>Old | FY21CE<br>New | Change<br>(%) |  |  |  |  |
| Sales  | 11,157             | 27.8    | 14,000        | 14,600        | 4.3           |  |  |  |  |
| Incl. Chemicals  | 10,941             | 29.7    | n/a           | n/a           | n/a           |  |  |  |  |
| Operating Profit [OP]  | 3,152              | 71.7    | 3,500         | 3,750         | 7.1           |  |  |  |  |
| OP Margin [OPM] (%)  | 28.3               | +7.3pp  | 25.0          | 25.7          | +0.7pp        |  |  |  |  |
| Recurring Profit [RP]  | 3,220              | 77.0    | 3,600         | 3,850         | 6.9           |  |  |  |  |
| NP for the parent's s/holders  | 2,284              | 91.0    | 2,600         | 2,750         | 5.8           |  |  |  |  |
| EPS (¥)  | 120.3              | 91.0    | 136.88        | 144.78        | 5.8           |  |  |  |  |
| Source: Nippon-IBR based on MEC Co., Ltd. press release on 10 Nov 2021 |                    |         |               |               |               |  |  |  |  |

# **SEGMENTS**

FY21 Q1 $^{\sim}$ Q3 Chemicals division sales, which comprises approx. 98% of the firm's total revenue, rose 29.7% YoY to ¥10,941mil and contributed ¥1,111mil of the ¥1,315mil YoY (+71.7% YoY) gain in FY21 Q1 $^{\sim}$ Q3 OP. In Q3 alone, the Chemical division saw a 36.0% YoY / 15.2% QoQ rise in sales to ¥4,008mil.

Continued strength in server demand at data centres as well as demand for PCs and tablets, bolstered by the rise in data transmission, supported MEC's sales growth. Over the 9-month period, sales of Copper Treatment Chemicals (approx. 95% of Chemicals sales) rose 28.7% YoY to  $\pm$ 10,393mil. In Q3 alone, quarterly sales of Copper Treatment Chemicals hit another record level of  $\pm$ 3,814mil (+35.0% YoY / +15.5% QoQ).

#### 1) Adhesive Enhancers

FY21 Q1 $^{\sim}$ Q3 Adhesive Enhancer sales rose 33.3%YoY to ¥6,990mil, of which sales in Q3 alone hit another quarterly record of ¥2,624mil (+43.5% YoY / +18.4% QoQ).

#### **EXECUTIVE SUMMARY**

- MEC (4971 JP) reported another impressive performance in FY21 (Dec year-end) Q3 earnings and led to yet another upward revision to the full-year guidance.
- Cumulative Q1~Q3 OPM hit 28.3% (+7.3ppt YoY) thanks to higher sales volumes and an improved sales mix.
- Sales of CZ-8101, MEC's core product, hit yet another quarterly sales record with sales of , supported by the rapid surge in package production. In Q3 alone, CZ-8101 sales were ¥1,199mil (+45.9% YoY / +15.5% QoQ), supported by the rapid surge in package production.
- Other CZ Chemicals, which include chemicals used pre and post the adhesive process in conjunction with the core CZ chemicals also hit record quarterly sales of ¥802mil (+68.5% YoY / +30.2% QoQ), which contributed to the rise in OPM.
- EXE, another of MEC's etching chemical products, also reported near record quarterly sales of ¥443mil (+40.2% YoY / -1.3% QoQ).
  Demand for use in chip-on-film remained solid as display makers stockpiled inventory for fear of components shortage and the firm demand for laptops / displays on the back of continued remote working and distance learning.
- Although MEC revised the full-year FY21 forecast for the third time this year, the new forecast indicates a slow-down in the Q4. The company assumes that stronger than expected Q3 performance partially reflected the front loading of orders.

The CZ series sales surged 48.1% YoY / 17.8% QoQ to ¥2,313mil. The firm's core product in this product group, CZ-8101, an adhesive-enhancing chemical used in packages for servers and chiplet packaging such as EMIB, also reported another record in quarterly sales. In Q3 alone, CZ-8101 sales were ¥1,199mil (+45.9% YoY / +15.5% QoQ.

The growth driver behind the strong CZ-8101 sales has been demand for packages used in (1) servers, bolstered by the increase in data transmission, and (2) for PCs, whose demand remains strong on the back of the prolonged remote working and distance learning due to Covid. CZ-8101 sales were further enhanced with package makers gradually shifting to chiplet technology such as EMIB.

In addition, Other CZ Chemicals, which include chemicals used pre and post the adhesive processes also hit a quarterly record high in sales at ¥802mil (+68.5% YoY / +30.2% QoQ), which further boosted the OPM. MEC reckons that the increasing density of packages has seen package makers using more chemicals in their efforts to improve adhesiveness.

The CZ-8100 product, which is partly used in packages for automobile components, also showed resilience despite the semiconductor shortage affecting automobile production. Although MEC had expected the semiconductor shortage-led slowdown in automobile production to have some negative impact on CZ-8100 demand, it was offset by an increase in the number of semiconductors used per car. In Q3 alone, CZ-8100 sales hit ¥312mil (+18.2% YoY / +0.6% QoQ), near to the record levels seen in FY20 Q4. V-Bond, another adhesive-enhancing chemical used in multilayer substrates for automobiles, also reported record guarterly sales of ¥213mil (+25.3% YoY / 15.8% QoQ).

#### 2) Etching Chemicals

Q3 sales of Etching Chemicals were  $\pm 1,190$ mil (19.5% YoY /  $\pm 9.8$ % QoQ). SF, a key material used in touch panel sensors, saw Q3 sales of  $\pm 281$ mil ( $\pm 13.8$ % YoY /  $\pm 16.6$ % QoQ). There was continued strong demand for existing tablet models – i.e., with touch panel sensors – on the back of the prolonged remote working and distance learning which boosted Q1~Q3 SF sales 16.6% YoY to  $\pm 848$ mil. MEC had already taken it into account at the beginning of this fiscal year that the high-end smartphone new models will not use touch panel sensors, but the current tablets being produced are still loaded with them.

EXE, another of MEC's etching chemical products, also reported near record quarterly sales of ¥443mil (+40.2% YoY / -1.3% QoQ). Demand for use in chip-on-film [COF] remained solid as display makers stockpiled inventory in fear of potential future components shortage, though the steady demand for laptops and displays as people worked and studied from home remained firm.

| (¥mil / Dec year-end)              |       | FY2019 |       |       |       | FY20  |       |       |       | FY21  |       |                         |            |  |  |
|------------------------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------------|------------|--|--|
|                                    |       | Q2     | Q3    | Q4    | QI    | Q2    | Q3    | Q4    | QI    | Q2    | Q3    | Q <sub>0</sub> Q<br>(%) | YoY<br>(%) |  |  |
| Copper surface treatment chemicals | 2,134 | 2,497  | 2,919 | 2,592 | 2,551 | 2,701 | 2,824 | 3,069 | 3,278 | 3,301 | 3,814 | 15.5                    | 35.1       |  |  |
| Adhesive enhancer (CZ,V-Bond etc.) | 1,360 | 1,588  | 1,718 | 1,695 | 1,720 | 1,695 | 1,828 | 1,970 | 2,150 | 2,216 | 2,624 | 18.4                    | 43.5       |  |  |
| CZ Series Total                    | 1,185 | 1,379  | 1,484 | 1,468 | 1,507 | 1,491 | 1,562 | 1,700 | 1,906 | 1,964 | 2,313 | 17.8                    | 48.1       |  |  |
| CZ-8100                            | 232   | 260    | 257   | 269   | 246   | 225   | 264   | 314   | 301   | 310   | 312   | 0.6                     | 18.2       |  |  |
| CZ-8101                            | 540   | 789    | 752   | 753   | 787   | 820   | 822   | 865   | 1,026 | 1,038 | 1,199 | 15.5                    | 45.9       |  |  |
| Other CZ chemicals                 | 413   | 330    | 475   | 446   | 474   | 446   | 476   | 521   | 579   | 616   | 802   | 30.2                    | 68.5       |  |  |
| Etching chemicals (EXE, SF etc.)   | 773   | 909    | 1,200 | 897   | 830   | 1,006 | 996   | 1,099 | 1,128 | 1,084 | 1,190 | 9.8                     | 19.5       |  |  |
| SF                                 | 145   | 205    | 407   | 222   | 182   | 298   | 247   | 362   | 326   | 240   | 288   | 20.0                    | 16.6       |  |  |
| EXE                                | 297   | 349    | 369   | 278   | 301   | 362   | 316   | 326   | 407   | 449   | 443   | -1.3                    | 40.2       |  |  |
| Other surface treatment chemicals  | 132   | 125    | 133   | 122   | 109   | 127   | 121   | 91    | 174   | 178   | 193   | 8.4                     | 59.5       |  |  |
| Chemical Sales Total               | 2,266 | 2,623  | 3,052 | 2,715 | 2,661 | 2,829 | 2,946 | 3,160 | 3,452 | 3,480 | 4,008 | 15.2                    | 36.0       |  |  |

| Chemical Sales by Products (Cumulative)                           |        |       |       |        |       |       |       |        |       |       |        |            |  |
|---|--------|-------|-------|--------|-------|-------|-------|--------|-------|-------|--------|------------|--|
|   | FY2019 |       |       |        | FY20  |       |       |        | FY21  |       |        |            |  |
| (¥mil / Dec year-end)   |        | Q2    | Q3    | Q4     | Q1    | Q2    | Q3    | Q4     | Q1    | Q2    | Q3     | YoY<br>(%) |  |
| Copper surface treatment chemicals                                | 2,134  | 4,631 | 7,550 | 10,142 | 2,551 | 5,252 | 8,076 | 11,147 | 3,278 | 6,579 | 10,393 | 28.7       |  |
| Adhesive enhancer (CZ, V-Bond etc)                                | 1,360  | 2,948 | 4,666 | 6,361  | 1,720 | 3,415 | 5,243 | 7,213  | 2,150 | 4,366 | 6,990  | 33.3       |  |
| CZ Series Total   | 1,185  | 2,564 | 4,048 | 5,516  | 1,507 | 2,998 | 4,560 | 6,260  | 1,906 | 3,870 | 6,183  | 35.6       |  |
| CZ-8100   | 232    | 492   | 749   | 1,018  | 246   | 471   | 735   | 1,049  | 301   | 611   | 923    | 25.6       |  |
| CZ-8101   | 540    | 1,329 | 2,081 | 2,834  | 787   | 1,607 | 2,429 | 3,294  | 1,026 | 2,064 | 3,263  | 34.3       |  |
| Other CZ chemicals  | 413    | 743   | 1,218 | 1,664  | 474   | 920   | 1,396 | 1,917  | 579   | 1,195 | 1,997  | 43.1       |  |
| Etching chemicals (EXE, SF etc.)                                  | 773    | 1,682 | 2,882 | 3,779  | 830   | 1,836 | 2,832 | 3,931  | 1,128 | 2,212 | 3,402  | 20.1       |  |
| SF  | 145    | 350   | 757   | 979    | 182   | 480   | 727   | 1,089  | 326   | 567   | 855    | 17.6       |  |
| EXE   | 297    | 646   | 1,015 | 1,293  | 301   | 663   | 979   | 1,305  | 407   | 856   | 1,299  | 32.6       |  |
| Other surface treatment chemicals                                 | 132    | 257   | 390   | 512    | 109   | 236   | 357   | 448    | 174   | 352   | 545    | 52.7       |  |
| Chemical Sales Total  | 2,266  | 4,889 | 7,941 | 10,656 | 2,661 | 5,490 | 8,436 | 11,596 | 3,452 | 6,932 | 10,940 | 29.7       |  |
| Source: Nippon-IBR based on MEC's earnings presentation materials |        |       |       |        |       |       |       |        |       |       |        |            |  |

### **FY21 OUTLOOK**

MEC revised up its previous FY21 guidance from OP of ¥3,500mil (+47.7% YoY) on sales of ¥14,000mil (+17.1% YoY) to OP of ¥3,750mil (+58.2% YoY) on sales of ¥14,600mil (+22.1% YoY). The FY21 dividend forecast remained unchanged at ¥35.00/share on a revised EPS of ¥144.78/share. Based on this year's net profit and dividend payment, ROE at the end of the year is estimated at 14.6%, an improvement of 5.1ppt from FY20.

The firm's assumptions on each segment are as follows:

#### Adhesive Enhancer

Thanks to the continued strength in demand for semiconductor packages, bolstered by strong demand for servers, and the associated strength in demand for CZ-8101, MEC revised its full-year CZ series sales forecast from 8,000mil to ¥8,252mil. CZ-8101 full-year sales, however, were only revised by ¥174mil to ¥4,374mil – a conservative assumption for the Q4 as management acknowledges the robust Q3 might be the result of customers frontloading orders. That said, demand for CZ-8101 remains solid, especially for packages used in servers.

For CZ-8100, thanks to a rise in the number of semiconductors used per vehicle, MEC assumes that the solid trend seen over the past 9 months will continue into the Q4. Furthermore, demand for CZ-8100 used in memory is also seeing an uptrend. Equally, for V-Bond, the firm assumes that sales will remain solid in Q4 as auto production begins to pick up again once the components shortage problems are solved.

#### 2) Etching Chemicals

MEC had already assumed SF sales would gradually shrink as new versions of high-end smartphones will no longer require touch panel sensors, for which SF is used. Although the COVID-led boost in tablet sales that do include touch panels have supported sales of SF during Q1~Q3, and will have a positive impact on FY21 earnings, management expects SF demand will decline in FY22.

The decline in SF will be partially offset by growing demand for EXE which will be used in Chip-on-Film [COF] for displays and mid-range smartphones throughout the year. Increase in sales of V-Bond will likely offset the sales decline in SF.

#### 3) Cost increase

MEC estimates an increase in personnel costs (both labour cost in COGS and personnel cost in SG&A) and overheads in Q4. As a result, the FY21 OPM is estimated to fall to 25.6% vs the 28.3% OPM achieved in the Q1 $^{\sim}$ Q3 period.

| Applications  | and trend for MEC's main chemicals   |   |                |            |                         |                         |            |
|---------------|--|---|----------------|------------|-------------------------|-------------------------|------------|
| Chemicals     | Applications   | Trend   | FY20<br>(¥mil) | YoY<br>(%) | FY21CE<br>Old<br>(¥mil) | FY21CE<br>New<br>(¥mil) | YoY<br>(%) |
| CZ series     | PC, Tablets, Servers, AiP, packages for automobile.  | Continuing from FY20, there is strong demand for servers due to an increase in demand for tablets and laptops on the back of increasing remote work and distance learning. Expansion of 5G infrastructure that 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          | 13.5       | 8,000                   | 8,252                   | 31.8       |
| EXE           | COF (Chip-on-Film) for smartphones and tablets. Currently evaluated for use in high-end smartphone motherboards. | FY20 sales were led by a rise in tablet and laptop demand. FY21 growth relies on the recovery of Chinese smartphone production. Enquires for the subtractive wire forming method, in which EXE is used in HDI motherboards are rising.  | 1,307          | 1.1        | 1,617                   | 1,697                   | 29.8       |
| V-Bond        | Pre-lamination treatment for<br>multilayer substrates. Used in<br>packages for autos and mid-end<br>smartphones  | Sales are expected to recover in line with automotive and Chinese smartphone production   | 668            | -2.5       | 769                     | 777                     | 15.0       |
| SF            | Touch panel sensor   | A decline in sales from smartphone displays is expected because of a new technology that does not require sensor.   | 1,091          | 11.4       | 1,005                   | 1,005                   | -7.9       |
| Source: Nippo | n-IBR  |   |                |            |                         |                         |            |

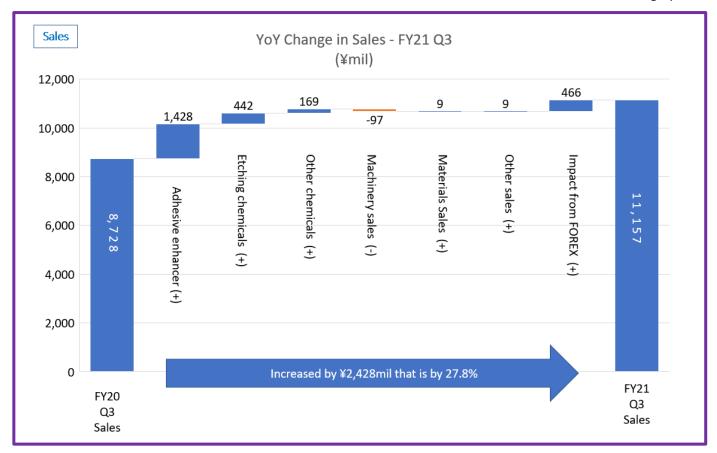
#### Demand from Package Makers to Remain Firm

MEC continues to view the medium-term potential for its chemicals to likely remain steady. Package makers – MEC's direct customers – are reportedly continuing to invest in capacity expansion to meet the demand from chipmakers, who are the customers of package makers, on the back of increasing demand for semiconductors required for data centre servers as 5G infrastructure is rolled out. It is said that towards 2025, package makers will gradually shift to the chiplet packaging method, which enables the size of a package to be larger and have more layers. Therefore, packages will require around eight times more CZ chemicals than current levels used to produce packages used in PCs. Judging from the level of CAPEX that is planned by its customers, MEC expects the current high demand for its core chemical products will likely remain firm until FY2023 but will then slowdown in FY24~25.

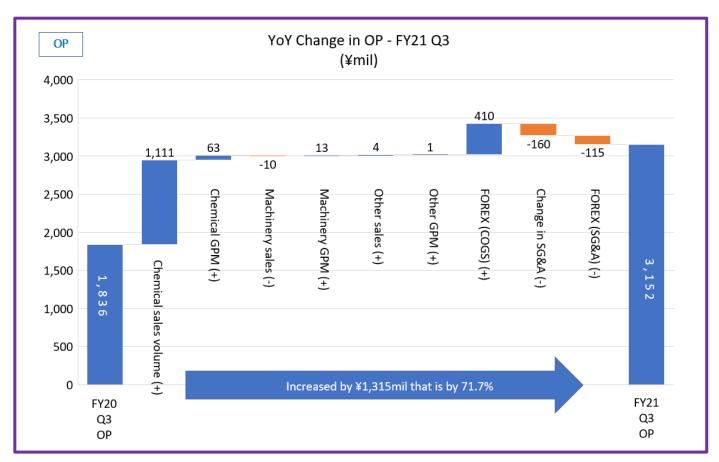
# Capacity Management and Expansion

Currently, MEC's factory in the Suzhou factory in China has been operating at the full capacity. Due to strict environmental regulations in the province that restricts adding expansion to the existing plant, MEC has been shipping product directly from Japan. Though a temporary solution, this will likely continue until FY22, as the firm works on increasing capacity at its other factory in Zhuhai, near Macau. Furthermore, the shift of capacity from the Nishinomiya factory to its facility in Thailand – also pending due to COVID – will likely be completed in FY21. After the accreditation process of the Thai factory by customers is completed, the plant will supply MEC's customers in Southeast Asia from FY22.

Although there was sufficient production capacity to meet increasing demand, MEC has spent ¥2,200mil on CAPEX over the past two years. In FY21, CAPEX is set at ¥700mil, some of which has already been spent on the Amagasaki factory. In FY22, the firm plans an increase in capacity at the Nagaoka factory in addition to aforementioned capacity increase at the Zhuhai factory. However, those investments will unlikely need any large CAPEX.



Source: Nippon-IBR based on MEC's FY21 Q3 earnings results presentation



Source: Nippon-IBR based on MEC's FY21 Q3 earnings results presentation

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