

### Kureha Corporation Reports Interim Results April – September 2019 (IFRS)

**Tokyo, Japan, November 2019** – Kureha Corporation ("Kureha"), a leading global supplier of specialty chemicals and plastics, has reported earnings for the first half of the year ending March 2020 (FY2019). On a consolidated basis, while revenue decreased 4% to 69.6 billion yen year-on-year, core operating profit climbed 26% to 8.9 billion yen, exceeding projections. Operating profit, including temporary income related to gains on transfer due to a new consolidation, rose sharply by 45% to 10.2 billion yen. Profit before income tax rose by 38% to 10.1 billion yen. Profit attributable to the owners of Kureha rose by 57% to 8.4 billion yen.

Revenue was affected by various factors, including intensifying competition in the polyglycolic acid (PGA) business; reduced electric vehicle subsidies in China temporarily affecting polyvinylidene fluoride (PVDF) sales in that market; and lower agrochemical sales. Even so, Kureha saw profit growth exceeding the latest projections across all segments except Specialty Chemicals. The main growth driver was the Advanced Materials segment, where operating profit jumped 301%.

Kureha also progressed on goals set forth in its mid-term management plan Kureha's Challenge 2020 (FY2019-2020). The PGA business gained momentum, with sales of PGA frac plugs by US subsidiary Kureha Energy Solutions growing steadily. Moreover, alongside reforms to the Group's corporate governance systems, Kureha strengthened its new business development. Notably, the Group is now a leading investor in Cambridge Touch Technologies, a British startup focused on next-generation 3D multitouch sensors. Based on Kureha's KF Piezo (PVDF) film, these sensors can be used for touch panels and smart phones at higher performance and lower cost compared with present technologies.

Yutaka Kobayashi, President and Chief Executive Officer, said, "We achieved continued profit growth in the first half of the year, even without factoring in the temporary income. Going forward, we will stay focused on enhancing strategic businesses for mid/long-term growth. Crucially, we aim to achieve profitability in the PGA business by year-end FY2019."

However, market conditions call for Kureha to accelerate progress toward sustainable growth, particularly in the Advanced Materials businesses. Competition in the frac plug market in North America is intensifying rapidly. Meanwhile, additional production capacity is urgently required for PVDF, a critically important binder material for lithiumion batteries (LiB) in electric and hybrid vehicles.

Elaborating on Kureha's response to these market factors, Mr. Kobayashi said, "In the PGA business, we will respond with flexible pricing policies and a new ultra-low temperature plug that will strengthen our presence in the Permian Basin, which holds about half of U.S. shale oil and gas reserves. We also intend to simplify our designs, including by completely removing metal parts. In the PVDF business, we will continue to expand production. Alongside new capacity at our facility in China, which will begin to produce new grades of binder material for in-vehicle LiBs next year, we will work to remove bottlenecks at the Iwaki Factory in Japan by early 2021 and launch a second overseas production facility in 2023."

Regarding progress in other strategic areas, Mr. Kobayashi said, "We implemented a range of measures to improve efficiency, corporate governance, quality and safety, and also made progress in the development of downstream applications via our investment in Cambridge Touch Technologies. We will continue to explore new business



opportunities around the globe, while at the same time optimizing our business portfolio to maximize consolidated profit. While our environment continues to be challenging, our ambition remains to achieve 18.0 billion yen in operating profit by FY2020."

#### **Consolidated interim results**

(Billions of yen, except where stated)

	Sep. 2018	Sep. 2019	Change (%)
Revenue	72.5	69.6	-4
Core operating profit	7.1	8.9	26
Operating profit	7.1	10.2	45
Profit before income tax	7.3	10.1	38
Profit attributable	5.3	8.4	57
to owners of Kureha			
Dividend per share (yen)	70.00	85.00	-

#### Consolidated interim results by segment

(Billions of yen)

Segment		Sep. 2018	Sep. 2019	Change (%)
Advanced Materials	Revenue	22.6	21.1	-7
	Operating profit	0.7	2.7	301
Specialty Chemicals	Revenue	14.1	11.7	-17
	Operating profit	2.1	1.0	-53
Specialty Plastics	Revenue	22.8	22.9	1
	Operating profit	3.4	3.7	8
Construction	Revenue	5.0	5.4	8
	Operating profit	0.1	0.4	250
Other Operations	Revenue	8.1	8.5	5
·	Operating profit	0.8	1.1	43
Adjustments		-0.1	-0.1	-
Other income		0.2	1.6	-
Other expenses		-0.2	-0.2	-
Total	Revenue	72.5	69.6	-4
	Operating profit (loss)	7.1	10.2	45

#### **Performance by Segment**

#### **Advanced Materials**

Major product areas: advanced plastics (PPS, PVDF, PGA), carbon materials

In the first-half period, revenue in the Advanced Materials segment decreased by 7% to 21.1 billion yen from 22.6 billion yen. Operating profit rose sharply by 301% to 2.7 billion yen, mainly due to lower production costs in the PGA and PVDF businesses.

#### Advanced plastics: PGA on track to profitability, continued PVDF growth

Advanced Plastics continues to be a growth driver for Kureha, although performance in the period was affected by slower sales of PGA stock shapes, price competition from magnesium composite frac plugs, and the temporary effects of reduced electric vehicle subsidies in the Chinese market.

The PGA business is on track toward profitability by year-end FY2019 on the back of steady sales of Kureha's degradable frac plugs in hotspots of U.S. shale oil production, including the Permian Basin and Eagle Ford Shale regions. The PVDF business



remained strong, with steady sales in Europe and Korea compensating for a temporary sales drop in China.

#### Carbon products: Lower sales volumes of carbon fiber

Lower sales volumes of carbon fiber affected revenue and operating profits. A key factor was slower demand for heat-insulating materials used in the manufacturing of ingots for semiconductor applications.

**Outlook:** In the PGA business, Kureha Energy Solutions is expected to see continued growth in both sales volumes and its customer base. The target is to sell 1,000 frac plug units per month in the second half and reach sales of 2.9 billion yen by year-end.

To further strengthen its presence in the increasingly competitive North American shale oil and gas market, Kureha will review its pricing policies and expand its product line-up with a new ultra-low temperature grade frac plug adapted for use in low-temperature wells, including the important Permian Basin. Another key strategy is to work closely with oil field operators to gather feedback regarding the usage and design of the frac plugs, and continuously enhance technical specifications based on such opinions.

In the PVDF business, demand for binder material for in-vehicle LiBs continues to grow rapidly. Kureha holds a 40% of the worldwide market for this material and is well-positioned to meet this need. However, the Group's facilities in Japan and China cannot by themselves ensure adequate supply. Kureha is therefore planning a second overseas facility capable of producing at least 5,000 tons/year, which is scheduled to come online in 2023. Meanwhile, the production line at the Iwaki Factory in Japan will be reviewed to remove bottlenecks.

The PPS business is expected to see slower growth, although demand will remain steady from the automotive industry for weight-reducing metal substitutes. The construction of a new production facility at the Iwaki Factory is proceeding as planned. The new facility, to be operational in February 2021, will expand capacity by 5,000 tons to a total of 15,700 tons.

In carbon products, revenue and operating profit are likely to decline due to lower sales of carbon fiber products.

Segment revenue for the full fiscal year is projected to be 43.0 billion yen, down 6% year-on-year, while operating profit is expected to rise by 13% to 5.2 billion yen.

#### **Specialty Chemicals**

Major product areas – industrial chemicals, agrochemicals, pharmaceuticals

In the first-half period, the Specialty Chemicals segment recorded revenue of 11.7 billion yen, a decrease of 17%, and operating profit of 1.0 billion yen, down 53%. Performance was particularly impacted by lower sales volumes of agrochemicals.

#### Agrochemicals: Slower sales of *Metconazole*

Sales volumes of the fungicide *Metconazole* declined due to customer inventory adjustments, affecting revenue and operating profit. Performance was also affected by the delivery of agrochemicals being postponed to the second half of the year.

#### Pharmaceuticals: Sales on par with previous year

Sales volumes of *Kremezin* tablets, a therapeutic agent for chronic kidney disease, remained largely on par with the previous year, enabling consistent operating profit in



the pharmaceuticals business despite the negative effect of government-mandated drug price revisions.

Industrial chemicals: Lower sales volumes of organic and inorganic chemicals Sales volumes of organic and inorganic chemicals declined due to slower demand, leading to decreases in both revenue and operating profit.

**Outlook:** In the second half of the fiscal year, customer inventory adjustments will continue to weigh on sales volumes of fungicides, affecting performance in the agrochemicals business. In the pharmaceuticals business, Kureha expects to see higher sales volumes of *Kremezin* tablets, leading to growth in revenue and operating profit. In the industrial chemicals business, slower demand will continue to affect revenue and profit growth.

Segment revenue for the full fiscal year is projected to remain largely unchanged at 27.0 billion yen year-on-year. However, operating profit will decrease by 18% to 2.7 billion yen.

#### **Specialty Plastics**

Major product areas – food packaging materials, household products

In the first-half period, revenue increased slightly to 22.9 billion yen, while operating profit was up 8% from 3.4 billion yen to 3.7 billion yen. These results were driven by continued healthy growth for Kureha's popular home products, such as *NEW Krewrap*.

#### Home products: Continued sales volume growth

Continued sales volume growth for *NEW Krewrap* plastic wrap and *Seaguar* fishing lines, propelled partly by higher demand prior to a consumption tax hike in Japan, led to increases in both revenue and operating profit.

#### Packaging materials: Slower sales of heat-shrink film

In commercial-use food packaging materials, revenue and operating profit fell due to lower sales volumes of Kureha's heat-shrink multilayer film *Krehalon ML* in Europe and the Oceania market.

**Outlook:** In home products, Kureha forecasts further revenue gains for *NEW Krewrap*, but operating profit will remain largely unchanged due to high promotional costs. In packaging materials, Kureha forecasts continued slow global sales of heat-shrink multilayer film as well as a volume decline for PVDC sausage film, leading to decreased revenue and operating profit. The demerger of Kureha's blow bottle business, Blow Ace, to Kyodo Printing on Nov. 1, 2019 will also have a temporary effect on full-year operating profit.

Segment revenue for the full fiscal year is expected to decrease by 4% to 43.5 billion yen, while operating profit is projected to fall by 5% to 6.4 billion yen.

#### **Construction / Other Operations**

Major product areas – construction and engineering, environmental engineering, logistics, trading related businesses

#### Construction: Private-sector projects drive revenue and profits

Increasing orders for construction projects in the private sector resulted in higher revenues and sharply higher profit growth, while public-sector construction projects remained steady. Profits also benefited from expense spending being delayed to the



second half of the fiscal year. As a result, revenue in the Construction segment rose 8% to 5.4 billion yen, while operating profit climbed 250% to 0.4 billion yen from 0.1 billion yen.

Other Operations: Continued momentum for environmental engineering

The environmental engineering business continued to grow on the back of higher industrial waste treatment volumes and gains from the consolidation of industrial waste treatment company Himeyuri Total Work Co., Ltd. The logistics business saw a slight fall in revenue but increased operating profit, while hospital operations increased revenue and maintained profits on a par with the previous period. As a result, revenue in Other Operations rose by 5% to 8.5 billion yen, and operating profit increased 43% to 1.1 billion yen from 0.8 billion yen.

**Outlook:** In the Construction segment, demand for private-sector construction projects is expected to be remain firm, although the number of high-margin project is likely to decrease. Revenue is projected to rise slightly by 5% to 13.0 billion yen, while operating profit will decrease 10% to 0.6 billion yen.

In Other Operations, intensifying competition and slower sales of environmental equipment will offset the positive effects of continued demand for industrial waste treatment and the business consolidation in the first half. Revenue is projected to decrease slightly by 1% to 17.5 billion yen, while operating profit will remain largely unchanged at 2.1 billion yen.

#### Capex, Depreciation, R&D and Debt

(Billions of yen)

	Sep. 2018	Sep. 2019	March 2020 forecasts
Capital expenditure	5.8	7.4	16.6
Depreciation	5.0	6.0	12.0
R&D	2.5	2.9	6.4
Interest-bearing debt	45.9	48.9	39.2

Capital expenditure during the first-half period increased from 5.8 billion yen to 7.4 billion yen. For the full fiscal year, Kureha expects to allocate 16.6 billion yen, up from 13.2 billion yen in FY2018, primarily to raise production capacity of high-demand products, such as PPS, and to upgrade manufacturing processes for existing products. Depreciation rose slightly to 6.0 billion yen and is expected to reach 12.0 billion yen for the full fiscal year.

R&D expenditure increased to 2.9 billion yen in the first half in line with Kureha's strategic goals of enhancing existing products and processes, and developing next-generation products through collaboration with companies, universities and organizations. For the full fiscal year, the allocation will rise from 5.3 billion to 6.4 billion yen.

Kureha continues to maintain interest-bearing debt at a low level. In the first-half period, interest-bearing debt increased slightly to 48.9 billion yen but it is expected to come down to 39.2 billion yen, near the previous year's level, by the end of the fiscal year.



#### Outlook for the Full Fiscal Year

(Billions of yen, except where stated)

	March 2019	March 2020	Change (%)
Revenue	148.3	144.0	-3
Core operating profit	17.4	17.0	-2
Operating profit	17.2	28.5	66
Profit before income tax	17.4	28.5	63
Profit attributable to the owners of Kureha	13.9	22.0	58
Earnings per share (yen)	679.6	1,111	
Dividend per share (yen)*	165.00	170.00	

(Billions of yen)

Division		March 2019	March 2020	Change
Division		maron 2013	Maron 2020	(%)
Advanced Materials	Revenue	45.7	43.0	-6
	Operating profit	4.6	5.2	13
Specialty Chemicals	Revenue	27.3	27.0	-1
	Operating profit	3.3	2.7	-18
Specialty Plastics	Revenue	45.1	43.5	-4
	Operating profit	6.7	6.4	-5
Construction	Revenue	12.4	13.0	5
	Operating profit	0.7	0.6	-10
Other Operations	Revenue	17.6	17.5	-1
	Operating profit	2.1	2.1	1
Adjustments		0.1	-	
Other income		0.6	12.5	
Other expenses		-0.9	-1.0	
Total	Revenue	148.3	144.0	-3
	Operating profit (loss)	17.2	28.5	66

Revenue is expected to decline slightly to 144.0 billion yen, primarily due to lower sales volumes in Advanced Materials and Specialty Plastics, which will also lead to a 2% reduction in core operating profit. However, the gains from a new consolidation in the first half, alongside gains from land sales and the demerger of Kureha's blow bottle business, will lead operating profit to rise by 66% to 28.5 billion yen.

Profit before income tax is expected to grow 63% to 28.5 billion yen. As a result, profit attributable to the owners of Kureha is forecast to increase 58% to 22.0 billion yen for the full fiscal year, bringing dividend per share to 170 yen.

Market conditions will remain challenging. Advanced Materials will continue to be Kureha's main growth driver, although full-year performance will be slightly below original projections. Going forward, Kureha will move decisively to meet the intense demand for PVDF and strengthen the momentum seen in the PGA business, which is now on track to become a profitable, steadily growing part of Kureha's operations.

As per the mid-term plan Kureha's Challenge 2020 (FY2019-2020), Kureha will also continue to implement wide-ranging measures for the Group's long-term growth. This includes strengthening new business creation, speeding up the commercialization of promising R&D themes, and continuing the internal drive to enhance efficiency, human resource utilization and digitization.

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#### **Condensed interim balance sheets**

As of March 31 and September 30, 2019 (Millions of yen)

	Mar. 2019	Sep. 2019
Assets		
Current assets	78,777	79,558
Cash and cash equivalents	5,989	7,426
Noncurrent assets	168,574	175,649
Property, plant and equipment	117,553	125,504
Intangible assets	1,094	1,084
Investments and other assets	49,927	49,060
Total assets	247,352	255,207
Liabilities and net assets		
Current liabilities	63,995	63,333
Short-term borrowings	23,038	26,839
Fixed liabilities	21,188	26,262
Corporate bonds and long-term borrowings	15,514	18,962
Total liabilities	85,184	89,596
Net assets		
Shareholders' equity	160,551	164,012
Minority interest	1,616	1,599
Total net assets	162,167	165,611
Total liabilities and net assets	247,352	255,207

#### **Condensed interim income statement**

As of March 31 and September 30, 2019

(Millions of yen)

148,265	69,578
104,683	48,053
28,051	13,839
17,172	10,230
17,435	10,141
3,435	1,729
13,933	8,357
	104,683 28,051 17,172 17,435 3,435

## For further information, please contact:

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# **FY2019 Interim Report**

(Period April 1 - September 30, 2019)

# **KUREHA CORPORATION**

November 11, 2019



## **KUREHA CORPORATION**

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# 1. FY2019 Half-Year Results

(April 1 – September 30, 2019)



# FY2019 1H Overview

(in billions of yen except per-share values)

	FY2018 1H	FY2019 1H	Change YOY%	FY2019 1H Guidance (vs. Actual%)
Revenue	72.5	69.6	-4%	75.0 (-7%)
Core operating profit	7.1	8.9	26%	8.2 (9%)
Operating profit	7.1	10.2	45%	8.0 (28%)
Profit before income tax	7.3	10.1	38%	8.0 (27%)
Profit attributable to owners of Kureha	5.3	8.4	57%	6.1 (37%)
Profit per share	¥257.63	¥417.23		
Profit per share attributable to owners of Kureha	¥7,695	¥8,284		
Dividend per share	¥70.0	¥85.0		

#### Vs. FY2018 1H

- Revenue declined in Advanced Materials and Specialty Chemicals
- Higher core operating profit driven by Advanced Materials and Specialty Plastics, despite lower agrochemical volumes in Specialty Chemicals
- Operating profit up on higher core operating profit coupled with a ¥1.5bn bargain purchase gain related to newly consolidated subsidiary

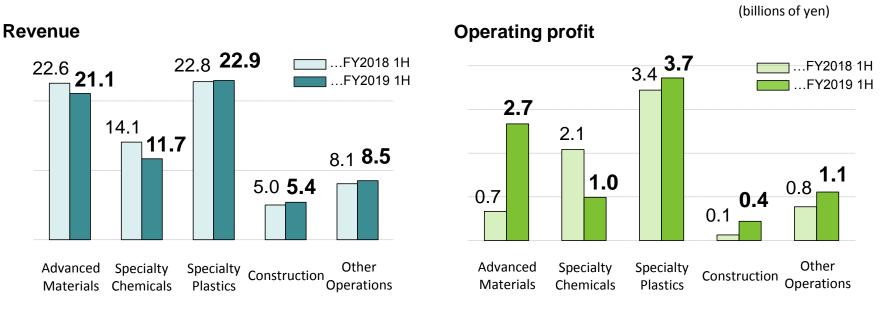
## (Vs. Guidance) \*Revised in August 2019

- Revenue down on weaker-thanexpected performances in Advanced Materials and Specialty Chemicals while Other Operations improved
- Higher operating profit led by lower raw materials and fuel costs, delayed spending of expenses and a discount purchase gain related to new subsidiary



# FY2019 1H Overview: YOY Analysis Kureha Corporation

# Performance by Segment: FY2019 1H vs. FY2018 1H



# Factors attributing to operating profit (vs. FY2018 1H)

AM: Improved profit for PVDF and PGA

SC: Lower agrochemical fungicides volumes

SP: Increased profit for home products more than offsetting a decline in packaging materials

CO: Higher construction volumes in the private sector

OO: Higher industrial waste treatment volumes and a discount purchase gain related to new

subsidiary



# FY2019 1H Overview: YOY Analysis KUREHA CORPORATION

(billions of yen)

FY20	018 1H	AM	SC	SP	CO	00	Total
Reve	enue	22.6	14.1	22.8	5.0	8.1	72.5
Segr	ment operating profit	0.7	2.1	3.4	0.1	8.0	7.1
Inter	rsegment adjustment						-0.1
	Other income						0.2
	Other expenses						0.2
Ope	rating profit						7.1
	Finance income						0.4
	Finance costs						0.2
Profi	t before income tax						7.3
Profi	it for the period						5.3

FY2019 1H	AM	SC	SP	CO	00	Total
Revenue	21.1	11.7	22.9	5.4	8.5	69.6
Segment operating profit	2.7	1.0	3.7	0.4	1.1	8.9
Intersegment adjustment						-0.1
Other income						1.6
Other expenses						0.2
Operating profit						10.2
Finance income						0.3
Finance costs						0.4
Profit before income tax						10.1
Profit for the period						8.4

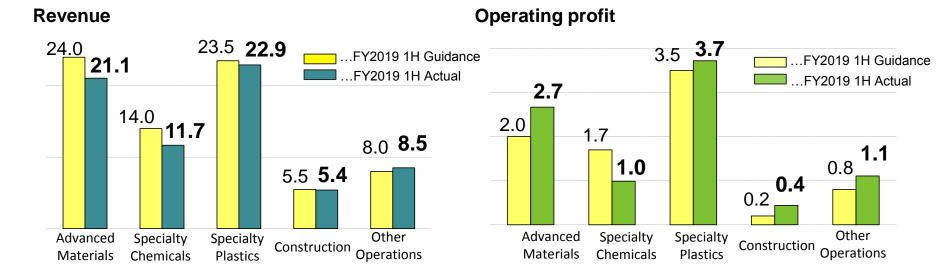
.. Gain on discount purchase related to newly consolidated subsidiary: ¥1.5bn

# FY2019 1H Overview: vs. Guidance

# KUREHA CORPORATION

### FY2019 1H Actual vs. Guidance

(billions of yen)



## Factors attributing to operating profit (vs. guidance)

AM: Improved PVDF product mix and improved profit for PGA

SC: Delayed delivery of agrochemicals to 2H period

SP: Delayed spending of expenses related to home products (to be spent in 2H)

CO: Delayed spending of expenses (to be spent in 2H)

OO: Higher industrial waste treatment volumes



# FY2019 1H Overview: vs. Guidance Kureha Corporation

(billions of yen)

FY	2019 1H Guidance	AM	SC	SP	CO	00	Total
	Revenue	24.0	14.0	23.5	5.5	8.0	75.0
	Segment operating profit	2.0	1.7	3.5	0.2	0.8	8.2
	Intersegment adjustment						0.0
	Other income						0.0
	Other expenses						0.2
	Operating profit						8.0
	Finance income						0.3
	Finance costs						0.3
	Profit before income tax						8.0
	Profit for the period						6.1

Y2019 1H Actual	AM	SC	SP	CO	00	Total
Revenue	21.1	11.7	22.9	5.4	8.5	69.6
Segment operating profit	2.7	1.0	3.7	0.4	1.1	8.9
Intersegment adjustment						-0.1
Other income						1.6
Other expenses						0.2
Operating profit						10.2
Finance income						0.3
Finance costs						0.4
Profit before income tax						10.1
Profit for the period						8.4

... Gain on discount purchase related to newly consolidated subsidiary:¥1.5bn

# FY2019 1H Segment Performance: Advanced Materials

(billions of yen)

	FY2018 1H	FY2019 1H	Change YOY%	FY2019 1H Guidance
Advanced Materials				
Advanced plastics	14.5	13.7	-6%	16.2
Carbon products	3.2	3.1	-3%	3.0
Other	4.8	4.3	-11%	4.8
Revenue	22.6	21.1	-7%	24.0
Operating Profit	0.7	2.7	301%	2.0

Vs. FY2018 1H

Revenue 4

**Operating Profit** 



## **Advanced plastics**

Revenue declined on lower sales volumes of PGA stock shapes, despite steady growth of PGA frac plugs, PVDF and PPS; operating profit improved by PVDF and PGA

## **Carbon products**

Revenue and operating profit down on lower carbon fiber volumes despite continued full-capacity production

(Vs. Guidance)

Revenue 4

Operating Profit 🗲



 Higher operating profit resulting from improved PVDF product mix and improved profit in PGA business



#### **KUREHA CORPORATION**

# FY2019 1H Segment Performance: Specialty Chemicals

(billions of yen)

	FY2018 1H	FY2019 1H	Change YOY%	FY2019 1H Guidance
Specialty Chemicals				
Agrochemicals	4.6	2.3	-49%	3.8
Pharmaceuticals	2.4	2.4	0%	2.6
Industrial chemicals	3.9	3.6	-8%	3.8
Other	3.1	3.3	5%	3.8
Revenue	14.1	11.7	-17%	14.0
Operating Profit	2.1	1.0	-53%	1.7

Vs. FY2018 1H

Revenue Operating Profit

## **Agrochemicals**

Revenue and operating profit declined on lower fungicides volumes

### **Pharmaceuticals**

Performed on par with prior year

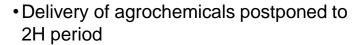
#### **Industrial chemicals**

Revenue and profit reduced by lower organic and inorganic chemicals volumes

(Vs. Guidance)

Revenue 4

Operating Profit





# **KUREHA CORPORATION**

# **FY2019 1H Segment Performance: Specialty Plastics**

(billions of yen)

	FY2018 1H	FY2019 1H	Change YOY%	FY2019 1H Guidance
Specialty Plastics				
Home products	10.5	11.3	8%	11.5
Fishing lines	1.5	1.6	5%	1.5
Packaging materials	8.2	7.3	-11%	7.6
Other	2.6	2.8	6%	2.9
Revenue	22.8	22.9	1%	23.5
Operating Profit	3.4	3.7	8%	3.5

Vs. FY2018 1H

Revenue 1 **Operating Profit** 

# **Home products & Fishing lines**

Revenue and operating profit increased on volume growth of New Krewrap (food wrap film) and Seaguar (fishing lines)

# **Packaging materials**

Revenue and profit down on lower multilayer shrink film volume

(Vs. Guidance)

## Revenue 4

**Operating Profit** 



 Revenue down in Packaging materials and Home products; operating profit up due to the spending of expenses deferred to 2H period in Home products



# FY2019 1H Segment Performance: Construction

**KUREHA CORPORATION** 

(billions of yen)

	FY2018 1H	FY2019 1H	Change YOY%	FY2019 1H Guidance
Construction				
Construction	8.1	9.6	18%	9.4
Consolidation adjustments	-3.1	-4.2		-3.9
Revenue	5.0	5.4	8%	5.5
Operating Profit	0.1	0.4	250%	0.2

Vs. FY2018 1H

Revenue / Operating Profit /

#### Construction

Higher revenue and operating profit propelled by construction projects in private sector

## (Vs. Guidance)

Revenue Operating Profit 🖈

 Revenue reduced by lower sales in private sector; operating profit up due to delayed spending of expenses to 2H period



# FY2019 1H Segment Performance: **Other Operations**

**KUREHA CORPORATION** 

(billions of yen)

	FY2018 1H	FY2019 1H	Change YOY%	FY2019 1H Guidance
Other Operations				
Environmental engineering	5.3	5.8	9%	5.6
Logistics	4.1	4.1	-1%	4.1
Hospital operation	1.8	2.0	13%	1.8
Other	1.0	1.1	16%	1.1
Consolidation adjustments	-4.1	-4.4		-4.6
Revenue	8.1	8.5	5%	8.0
Operating Profit	0.8	1.1	43%	0.8

Vs. FY2018 1H

Revenue 7 **Operating Profit** 

## **Environmental engineering**

Revenue and operating profit increased on higher industrial waste treatment volume and as a result of business consolidation

## Logistics

Revenue down, operating profit up

## **Hospital operation**

Revenue up, operating profit on par with prior year

## (Vs. Guidance)

Revenue 7

**Operating Profit** 



 Better-than-expected performance in Environmental engineering



# **Financial Position**

#### **KUREHA CORPORATION**

Assets				<b>Liabilities and Equity</b>	Liabilities and Equity		s of yen)
	Mar. 31 2019	Sept. 30 2019	Change		Mar. 31 2019	Sept. 30 2019	Change
Cash and cash equivalents	6.0	7.4	1.4	Trade and other payables	24.0	18.7	-5.3
Trade and other receivables	30.7	25.8	-4.9	Interest-bearing debt	39.0	48.9	9.9
Inventories	38.3	42.1	3.8	Provisions	6.8	7.2	0.3
Other current assets	3.7	4.2	0.4	Other liabilities	15.3	14.7	-0.6
Total current assets	78.8	79.6	0.8	Total liabilities	85.2	89.6	4.4
Property, plant and equipment	117.6	125.5	8.0	Shareholders' equity	18.2	18.2	
Intangible assets	1.1	1.1	-0.0	Capital surplus	15.0	15.0	
Investments and other assets	49.9	49.1	-0.9	Less: Treasury stock	-3.7	-6.8	-3.1
				Retained earnings	122.4	131.8	9.5
				Other components of equity	8.7	5.8	-2.9
				Non-controlling interests	1.6	1.6	-0.0
Total non-current assets	168.6	175.6	7.1	Total equity	162.2	165.6	3.4
Total assets	247.4	255.2	7.9	Total liabilities and equity	247.4	255.2	7.9

Notes to the statement of financial position as of March 31, 2019 and other supplementary information

<sup>•</sup> Treasury stock acquired during the first six months of FY2019 (April 1 through September 30, 2019: 460,200 shares valued at ¥3.095 million



<sup>•</sup> Impacts of business merger with Himeyuri Total Work: Current assets: +¥2.2bn, Property, plant and equipment: +¥5.5bn, Other non-current assets: +¥0.8bn, Interest-bearing debt: +¥4.9bn, Provision: +¥1bn

<sup>•</sup> Impacts of changes in accounting policy (IFR,16 'Lease'): Property, plant and equipment: +¥2.5bn, Interest-bearing debt: +¥2.6bn

<sup>•</sup> Ratio of equity attributable to owners of Kureha to total assets: 64.9% (as of Mar. 31, 2019), 64.3% (as of Sept. 30, 2019)

## **KUREHA CORPORATION**

# **Cash Flow**

(billions of yen)

	FY2018 1H	FY2019 1H	Change
Profit before income tax	7.3	10.1	2.8
Depreciation	5.0	6.0	1.1
Other	-1.9	-9.6	-7.6
Cash flow from operating activities	10.3	6.6	-3.7
Cash flow from investing activities	-6.9	-2.5	4.4
Cash flow from financing activities	-4.4	-2.6	1.8
Effect of exchange rate changes on cash and cash equivalents	0.0	-0.1	-0.1
Increase/decrease in cash and cash equivalents	-0.9	1.4	2.4
Cash and cash equivalents at beginning of period	6.5	6.0	-0.5
Cash and cash equivalents at end of period	5.5	7.4	1.9



# 2. FY2019 Full-Year Outlook

(April 1, 2019 - March 31, 2020)



# **FY2019 Earnings Forecast**

## \*FY2019 earnings forecast was updated on November 11, 2019

(In billions of yen, except per-share values)

(III billions of yell, except per si	iaic values)				
	FY2018	FY2019 Revised guidance	Change YOY (%)	FY2019 Guidance (August)	
Revenue	148.3	144.0	-4.3 (-3%)	152.0	
Core operating profit	17.4	17.0	-0.4 (-2%)	17.0	
Operating profit	17.2	28.5	11.3 (66%)	26.0	
Profit before income tax	17.4	28.5	11.1 (63%)	26.0	
Profit attributable to owners of Kureha	13.9	22.0	8.1 (58%)	19.5	
Profit per share	¥679.6	¥1,111			
Owners' equity per share	¥7,923	¥8,920			
Dividend per share (Interim, Year-end)	¥165.0 (70, 95)	¥170 (85, 85)			

#### Vs. FY2018

- Revenue expected to decrease mainly in Advanced Materials and Specialty Plastics
- Lower core operating profit led by Specialty Chemicals and Specialty Plastics, despite profit growth in Advanced Materials (PGA turning profitable)
- Operating profit to increase due to gains from land sales and the discount purchase of new subsidiary

#### (Vs. Previous guidance)

- Lower revenue driven by Advanced Materials and Specialty Plastics
- Operating profit up on higher 'other income' inclusive of gains from the discount purchase of new subsidiary and the sale of bottle business

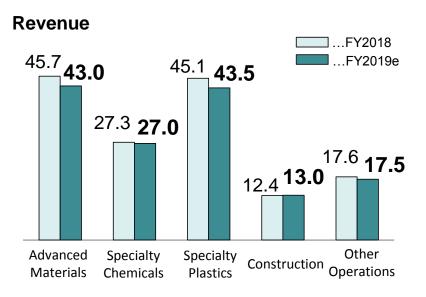


#### **KUREHA CORPORATION**

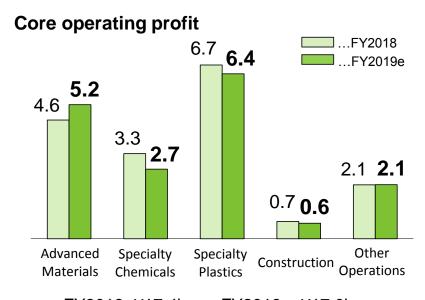
(billions of yen)

# FY2019 Earnings Forecast (vs. FY2018)

# Performance by Segment: FY2019e (revised guidance) vs. FY2018



FY2018: ¥148.3bn FY2019e: ¥144.0bn



FY2018: ¥17.4bn FY2019e: ¥17.0bn

## Factors attributing to operating profit (vs. FY2018)

AM: PGA business turning in black, higher profit generated by PVDF

SC: Lower agrochemical volume due to customer's inventory adjustments more than offsetting profit growth in Pharmaceuticals

SP: Lower packaging materials volumes

CO: Fewer high-margin construction projects

OO: (Performs on par with FY18)



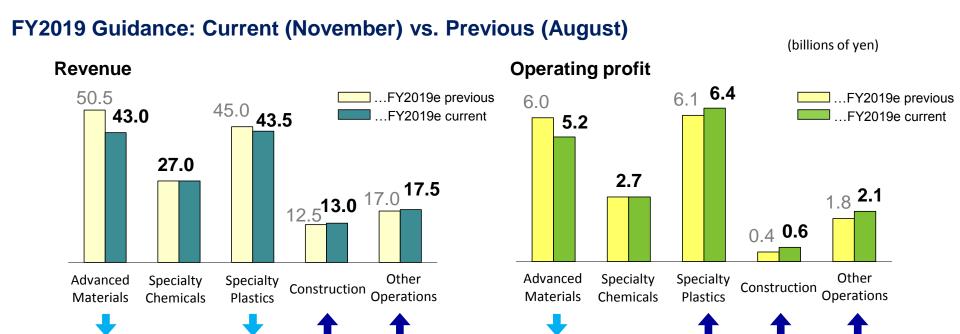
# FY2019 Earnings Forecast (vs. FY2018)

#### **KUREHA CORPORATION**

								(billions of yen)
F١	/2018	AM	SC	SP	CO	00	Total	
	Revenue	45.7	27.3	45.1	12.4	17.6	148.3	
	Segment operating profit	4.6	3.3	6.7	0.7	2.1	17.4	
	Intersegment adjustment						0.1	
	Other income						0.6	Subsidy income: ¥0.3bn
	Other expenses						0.9	Loss on sales and retirement of non- current assets: ¥0.8bn
	Operating profit						17.2	
	Finance income						0.7	
	Finance costs						0.4	
	Profit before income tax						17.4	
	Profit for the period						13.9	
F١	/2019e (revised Nov. 11)	AM	SC	SP	СО	00	Total	
	Revenue	43.0	27.0	43.5	13.0	17.5	144.0	
	Segment operating profit	5.2	2.7	6.4	0.6	2.1	17.0	
	Intersegment adjustment							
	Other income						12.5	Gain on land sale (HQ annex):¥9.2bn Gain on discount purchase related to
	Other expenses						1.0	newly consolidated subsidiary: ¥1.5bn
	Operating profit						28.5	Gain on sale of bottle business:¥1.2bn
	Finance income						0.7	
	Finance costs						0.7	
	Profit before income tax						28.5	
	Profit for the period						22.0	

# FY2019 Earnings Forecast (vs. previous guidance)

**KUREHA CORPORATION** 



## Factors attributing to operating profit (vs. previous guidance)

AM: Profit decreases for PPS and other products more than offsetting higher profit generated by PVDF

SC: (Performs in line with previous guidance)

SP: Higher NEW Krewrap volume

CO: Higher profit generated by large-scale construction projects

OO: Higher industrial waste treatment volumes



# FY2019 Earnings Forecast (vs. previous guidance)

#### **KUREHA CORPORATION**

(billions										
FY2019 guidance (Aug)	AM	SC	SP	СО	00	Total				
Revenue	50.5	27.0	45.0	12.5	17.0	152.0				
Segment operating profit	6.0	2.7	6.1	0.4	1.8	17.0				
Intersegment adjustment										
Other income						10.0	Gain on land sales (HQ annex): ¥9.2bn			
Other expenses						1.0	··· Loss on sales and retirement of non- current assets: ¥0.8bn			
Operating profit						26.0	current assets. #0.60ff			
Finance income						0.7				
Finance costs						0.7				
Profit before income tax						26.0				
Profit for the period						19.5				
FY2019 guidance (Nov)	AM	SC	SP	СО	00	Total				
Revenue	43.0	27.0	43.5	13.0	17.5	144.0				
Segment operating profit	5.2	2.7	6.4	0.6	2.1	17.0				
Intersegment adjustment										
Other income						12.5	··· Gain on land sales (HQ annex): ¥9.2bn			
Other expenses						1.0	Gain on discount purchase related to newly consolidated subsidiary: ¥1.5bn			
Operating profit						28.5	Gain on business merger related to bottle business:¥1.2bn			
Finance income						0.7	business.±1.2011			
Finance costs						0.7				
Profit before income tax						28.5				
Profit for the period						22.0				

# **Segment Outlook: Advanced Materials**

(billions of yen)

	FY2018	FY2019 Revised Guidance	Change YOY%	FY2019 Guidance (August)
<b>Advanced Materials</b>				
Advanced plastics	28.5	29.5	3%	34.2
Carbon products	6.1	5.5	-10%	5.9
Other	11.1	8.0	-28%	10.4
Revenue	45.7	43.0	-6%	50.5
Operating Profit	4.6	5.2	13%	6.0

#### Vs. FY2018

Revenue

**Operating Profit** 

## **Advanced plastics**

Revenue up on higher sales volumes of PGA frac plugs and PVDF; higher operating profit driven by PVDF and PGA

## **Carbon products**

Revenue and profit to decrease on lower carbon fiber volumes

#### Other

Revenue and profit down due to slower demand in semiconductor and electric/electronics businesses

### (Vs. Previous guidance)

Revenue 4

**Operating Profit** 



 Lower operating profit led by PPS and other products, despite higher profit generated by PVDF



# Segment Outlook: Specialty Chemicals

(billions of yen)

		FY2019	Change	FY2019
	FY2018	Revised Guidance	YOY%	Guidance (August)
Specialty Chemicals				
Agrochemicals	8.3	6.5	-22%	6.5
Pharmaceuticals	5.0	5.3	7%	5.3
Industrial chemicals	7.6	7.5	-2%	7.5
Other	6.4	7.7	21%	7.7
Revenue	27.3	27.0	-1%	27.0
Operating Profit	3.3	2.7	-18%	2.7

#### Vs. FY2018

Revenue Y Ope

**Operating Profit** 

## **Agrochemicals**

Revenue and operating profit to decline due to customer's inventory adjustments for fungicides

### **Pharmaceuticals**

Higher revenue and profit propelled by volume growth of new Kremezin tablets

#### **Industrial chemicals**

Revenue and profit down due to slower demand

### (Vs. Previous guidance)

Revenue → Operating Profit →

(Performs in line with previous guidance)



# **Segment Outlook: Specialty Plastics**

(billions of yen)

(Simons or yen)				
	FY2018	FY2019 Revised Guidance	Change YOY%	FY2019 Guidance (August)
Specialty Plastics				
Home products	20.5	20.8	2%	20.8
Fishing lines	2.9	3.0	3%	3.0
Packaging materials	16.2	14.2	-13%	15.3
Other	5.5	5.5	-1%	5.9
Revenue	45.1	43.5	-4%	45.0
Operating Profit	6.7	6.4	-5%	6.1

#### Vs. FY2018

Revenue Operating Profit

## **Home products**

Operating profit to remain flat on slightly higher revenue as higher expenses offset volumes growth of New Krewrap and Kichinto-san series

## **Packaging materials**

Revenue and profit to decrease on lower ML shrink film and PVDC film volumes and as a result of bottle business divestment

#### (Vs. Previous guidance)

Revenue \ Operating Profit \

 Higher operating profit driven by NEW Krewrap volume growth, despite a profit decline in Packaging materials



# **Segment Outlook: Construction**

(billions of yen)

	FY2018	FY2019 Revised Guidance	Change YOY%	FY2019 Guidance (August)
Construction				
Construction	20.3	21.2	4%	19.5
Consolidation adjustments	-7.9	-8.2		-7.0
Revenue	12.4	13.0	5%	12.5
Operating Profit	0.7	0.6	-10%	0.4

#### Vs. FY2018

Revenue / Operating Profit

## **Construction**

Revenue up on higher construction volumes in the private sector, but operating profit likely to decrease due to fewer high-margin projects

## (Vs. Previous guidance)

Revenue - Operating Profit 🗲

 Operating profit up with off-budget, large-scale construction projects



# **Segment Outlook: Other Operations**

(billions of ven)

(Billions of Yell)				
	FY2018	FY2019 Revised guidance	Change YOY%	FY2019 Guidance (August)
Other Operations				
Environmental engineering	12.0	12.3	3%	11.4
Logistics	8.3	8.1	-3%	8.5
Hospital operation	3.7	3.9	5%	3.9
Other	1.9	2.2	17%	2.2
Consolidation adjustments	-8.3	-9.0		-9.0
Revenue	17.6	17.5	-1%	17.0
Operating Profit	2.1	2.1	1%	1.8

Vs. FY2018

Revenue

Operating Profit



## **Environment engineering**

Revenue down and operating profit to remain flat as slower environment equipment sales offset the impact of business consolidation and higher industrial waste treatment volumes

## (Vs. Previous guidance)

Revenue - Operating Profit 1

 Higher operating profit supported by volume growth of industrial waste treatment



## **KUREHA CORPORATION**

**KUREHA** 

# **Key Indicators**

(billions of yen)

			FY2018		FY2019			Change
		1H	2H	Full year	1H	2H(e)	Full year(e)	YOY(%)
Capital ex	penditure	5.8	7.4	13.2	7.4	9.2	16.6	3.4 (26%)
Depreciati	on expenses	5.0	5.3	10.3	6.0	6.0	12.0	1.7 (17%)
R&D expe	enses	2.5	2.8	5.3	2.9	3.5	6.4	1.1 (21%)
Interest-bearing debt		45.9	39.0	39.0	48.9	39.2	39.2	0.1 (0%)
Currency ex	change rates							
1USD:	Term average	¥110.3	¥111.6	¥110.9	¥108.6	¥105.0	¥106.8	
	Term end	¥113.6	¥110.0	¥110.0	¥107.9	¥105.0	¥105.0	
1EUR:	Term average	¥129.8	¥127.1	¥128.4	¥121.4	¥120.0	¥120.7	
	Term end	¥132.1	¥124.6	¥124.6	¥118.0	¥120.0	¥120.0	
1CHY:	Term average	¥16.7	¥16.3	¥16.5	¥15.7	¥15.5	¥15.6	
	Term end	¥16.5	¥16.5	¥16.5	¥15.1	¥15.5	¥15.5	

# **Cash Flow**

(billions of yen)

	FY2018	FY2019e	Change YOY
Profit before income tax	17.4	28.5	11.1
Depreciation and amortization	10.3	12.0	1.7
Other	-4.4	-26.0	-21.6
Cash flow from operating activities	23.4	14.5	-8.9
Cash flow from investing activities	-8.4	2.6	10.9
Cash flow from financing activities	-15.5	-16.3	-0.8
Effect of exchange rate changes on cash and cash equivalents	-0.0	0.0	0.0
Increase/decrease in cash and cash equivalents	-0.5	0.7	1.2
Cash and cash equivalents at beginning of year	6.5	6.0	-0.5
Cash and cash equivalents at end of year	6.0	6.7	0.7



# 3. Consolidated Companies



# **Revenues & Assets**

## **KUREHA CORPORATION**

(billions of yen)

							(billions of yell
		FY20	18 1H	FY201	I9 1H	Cha	inge
		Revenue	Total assets	Revenue	Total assets	Revenue	Total assets
Kureha C	Corporation	34.3	196.9	32.3	196.9	-2.0	-0.0
Kureha T	rading Group (2)	9.2	13.8	8.8	12.3	-0.4	-1.6
	Kureha Corporation	15.7		15.2		-0.4	
	Kureha Trading Group (2)	5.7		4.4		-1.3	
	Kureha Extron	1.1	2.1	1.6	5.5	-0.8	2.0
	Kureha Extech	1.3	1.4	(Consc	olidated into Kureha	a Extron as of Apr	il 2019)
Advanced	Kureha GmbH	1.1	1.1	1.1	0.9	-0.1	-0.3
Materials	Kureha America Group (3)	1.2	27.2	1.9	27.9	0.6	0.7
Materials	Kureha (Shanghai) Carbon Fiber Materials	0.7	1.3	0.7	1.3	0.0	-0.0
	Kureha China Group (2)	3.5	10.2	3.5	9.7	-0.0	-0.5
	Consolidation adjustments	-7.7		-7.3		0.4	
	Total	22.6		21.1		-1.5	
Specialty	Kureha Corporation	12.2		9.6		-2.7	
Specialty Chemical	Kureha Trading	3.4		3.6		0.2	
S	Consolidation adjustments	-1.6		-1.5		0.1	
3	Total	14.1		11.7		-2.4	
	Kureha Corporation	13.6		14.0		0.4	
	Kureha Trading	2.4		2.7		0.3	
	Kureha Gohsen	2.3	5.0	2.3	5.0	-0.0	-0.0
Specialty	Kureha China Group (2)	0.1		0.1		-0.0	
Plastics	Kureha America Group (3)	0.8	0.8	0.8	0.7	-0.0	-0.1
1 1031103	Kureha Europe Group (4)	4.7	7.7	4.2	7.2	-0.5	-0.5
	Kureha Vietnam	1.6	3.4	1.6	3.1	-0.0	-0.2
	Consolidation adjustments	-2.7		-2.7		0.0	
	Total	22.8		22.9		0.2	

# **Revenues & Assets**

#### **KUREHA CORPORATION**

(billions of yen)

		FY20	18 1H	FY2019 1H		Change	
		Revenue	Total assets	Revenue	Total assets	Revenue	Total assets
Construc- tion	Kureha Nishiki Group (4) Kureha Engineering Consolidation adjustments Total	6.7 1.4 -3.1 5.0	10.0 1.8 	8.1 1.5 -4.2 5.4	11.2 1.9 	1.3 0.1 -1.1 0.4	1.2 0.1 
Other Operations	Kureha Ecology Management Group (2) Kureha Special Laboratory Kureha Unyu Group (2) Kureha Trading	4.7 0.6 4.1 0.0 0.3 1.8 0.6	8.8 0.6 6.2  1.0 3.3 0.6	5.2 0.6 4.1 0.0 0.3 2.0 0.8	22.6 0.7 5.4  1.2 3.4 0.6	0.5 -0.0 -0.1 -0.0 0.0 0.2 0.1 -0.4	13.8 0.0 -0.8  0.2 0.1 0.0
Kureha Group Total  Number of consolidated subsidiaries and equity- method affiliates		<b>72.5</b> 32		69.6 30		-2.9	

<sup>\*</sup>Parenthesized numbers indicate the number of consolidated companies for each group.

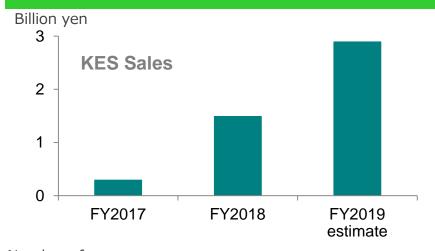


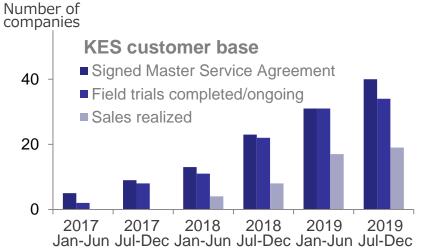
# 4. Supplementary



# **PGA Business Update**

# Kureha Energy Solutions is expanding the market for its original PGA frac plugs





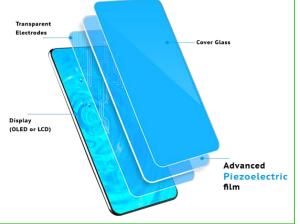


- KES is steadily expanding sales with a growing customer base after launching its first original PGA frac plugs in 2017. The company now operates seven sales/distribution locations and continues to improve its market access and supply ability.
- KES currently sells PGA frac plugs primarily for mid/high-temperature wells but is enhancing its presence in low-temperature markets including the Permian region, which holds 50% of the U.S. shale oil and gas reserves.

# Kureha's Evolving Business Portfolique CORPORATION

# Kureha funds Cambridge Touch Technologies (June 2019)

- Cambridge Touch Technologies, a startup in England, develops next-generation 3D multi-touch sensors with Kureha's KF Piezofilm technology
- Will accelerate our downstream business development
- Application areas: Smart phones, touch panels



# Kureha's blow bottle business demerged into Kyodo Printing (Nov. 1, 2019)

(FY2018)

Revenue: ¥1.8 billion

Business profit: ¥0.1 billion





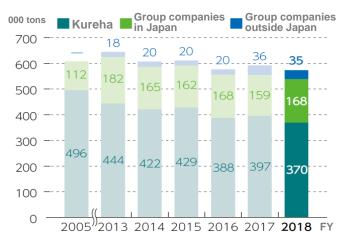
# Kureha's CSR Management Initiatives

**KUREHA CORPORATION** 

## **Reducing Greenhouse Gas Emissions**

- 'Kureha ECO<sup>2</sup> Actions 2020'
  - Reduce energy unit by more than 1% YoY
  - Reduce BAU\* CO<sub>2</sub> emissions by more than 10% by 2020 (vs. 2005)
- Adopted for the S&P/JPX Carbon Efficient Index





## **Tackling Marine Plastic Problems**

 Became a member of the Clean Ocean Material Alliance (CLOMA) January 2019



# **Improving Labor Environment**

Declared our support in the 'White Logistics' movement

September 2019

## **Corporate Governance**

 Abolished the positions of executive and senior corporate advisors; Reformed executive compensation systems
 April 2019

\*BAU=business as usual

CO<sub>2</sub> Emissions



# **Disclaimer**

- These materials are supplied to provide a deeper understanding of our company, and are not intended to as a solicitation for investment or other actions.
- These materials have been prepared by our company based on the information available at this point in time. However, actual performance may produce results that differ from the plan due to unforeseeable events and factors.
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