

**Summary of Consolidated Financial Results  
for the Six Months Ended September 30, 2019  
[Japanese GAAP]**

October 31, 2019

Company Name : NGK INSULATORS, LTD.  
 Stock Exchange Listings : Tokyo and Nagoya  
 Listing Code : 5333  
 URL : <https://www.ngk-insulators.com/en/>  
 Representative : President Taku Oshima (Mr.)  
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 Date of the Filing of Securities Report "Shihanki Hokokusho" (Scheduled) : November 8, 2019  
 Date of Dividend Payment (Scheduled) : December 6, 2019  
 Availability of supplementary explanatory materials prepared for financial results : Available  
 Briefing session on financial results to be held : Yes (for securities analysts and institutional investors)

(All yen amounts are rounded down to the nearest million.)

**1. Consolidated Financial Results for the Six Months Ended September 30, 2019 (from April 1, 2019 to September 30, 2019)**

**(1) Consolidated Operating Results** (Percentage figures represent increase (decrease) from previous period.)

	Net sales		Operating income		Ordinary income		Profit attributable to owners of parent	
	Millions of yen	%	Millions of yen	%	Millions of yen	%	Millions of yen	%
Six months ended September 30, 2019	219,766	(3.7)	31,643	(11.4)	29,679	(13.3)	21,244	(14.0)
Six months ended September 30, 2018	228,163	3.8	35,733	(0.4)	34,234	0.1	24,705	24.8

(Note) Comprehensive income : Six months ended September 30, 2019 5,967 million yen (81.4) %  
 : Six months ended September 30, 2018 32,002 million yen (16.1) %

	Profit per share	Diluted profit per share
	Yen	Yen
Six months ended September 30, 2019	66.02	65.91
Six months ended September 30, 2018	76.78	76.66

**(2) Consolidated Financial Position**

	Total assets	Total net assets	Ratio of net worth to total assets
	Millions of yen	Millions of yen	%
September 30, 2019	864,732	487,196	55.1
March 31, 2019	863,636	489,245	55.3

(Reference) Net worth : As of September 30, 2019 476,120 million yen  
 : As of March 31, 2019 477,516 million yen

**2. Dividend Payment**

	Cash dividends per share				
	First quarter-end	Second quarter-end	Third quarter-end	Year-end	Total (Full-year)
Year ended March 31, 2019	Yen —	Yen 25.00	Yen —	Yen 25.00	Yen 50.00
Year ending March 31, 2020	—	25.00			
Year ending March 31, 2020 (forecast)			—	25.00	50.00

(Note) Revision of cash dividend forecast during this period: None

### 3. Forecasts of Consolidated Financial Results for the Fiscal Year Ending March 31, 2020

(Percentage figures represent increase (decrease) from previous period.)

	Net sales		Operating income		Ordinary income		Profit attributable to owners of parent		Profit per share
	Millions of yen	%	Millions of yen	%	Millions of yen	%	Millions of yen	%	Yen
Year ending March 31, 2020	450,000	(2.9)	60,000	(7.3)	60,000	(6.8)	42,000	18.3	131.28

(Note) Revision of forecasts of consolidated financial results during this period: Yes

#### Notes

- (1) Significant changes in subsidiaries during this period (changes in specified subsidiaries, "tokutei kogaisha" defined in the "Cabinet Office Ordinance on Disclosure of Corporate Information, etc.", involving a change of the scope of consolidation during this period): None

New — company ( ), Exclusion — company ( )

- (2) Application of special accounting methods for preparing quarterly consolidated financial statements: None

- (3) Changes in accounting policies, accounting estimates or retrospective restatements

- i. Changes due to revisions of accounting standards : Yes
- ii. Changes in accounting policies other than the above (i) : None
- iii. Changes in accounting estimates : None
- iv. Retrospective restatement : None

(Note) For details, please refer to "2. Consolidated Financial Statements and Notes (3) Notes to Consolidated Financial Statements (Changes in accounting policy)" on page 7 of the Appendix.

- (4) Number of shares outstanding (Common Shares)

i. Number of shares outstanding at period end including treasury stocks	September 30, 2019	327,560,196 shares	March 31, 2019	327,560,196 shares
ii. Number of treasury stocks at period end	September 30, 2019	5,729,423 shares	March 31, 2019	5,779,637 shares
iii. Average number of shares outstanding over period	September 30, 2019	321,807,345 shares	September 30, 2018	321,769,369 shares

\* These quarterly financial statements are not subject to the quarterly review procedure of certified public accountant or audit firm

#### \* Explanation of appropriate use of results forecasts and other notes

This document contains forward-looking statements that are based on information and certain assumption NGK INSULATORS, LTD. ("NGK") has acquired and deemed reasonable as of the time of the release and NGK does not guarantee the achievement of them. Actual future results and trends may differ materially from those in the forecasts due to a variety of factors.

**Contents of Appendix**

<b>1. Qualitative Information on Quarterly Financial Statements</b> .....	<b>2</b>
(1) Explanation of Business Results .....	2
(2) Explanation of Financial Position .....	2
(3) Explanation of Forward-looking Statements including Forecasts for Consolidated Financial Statements .....	2
<b>2. Consolidated Financial Statements and Notes</b> .....	<b>3</b>
(1) Consolidated Balance Sheet .....	3
(2) Consolidated Statement of Income and Consolidated Statement of Comprehensive Income .....	5
Consolidated Statement of Income .....	5
Consolidated Statement of Comprehensive Income .....	6
(3) Notes to Consolidated Financial Statements .....	7
(Note on the Assumption as a Going Concern) .....	7
(Significant Changes in Stockholder's Equity) .....	7
(Changes in Accounting Policy) .....	7
(Additional Information) .....	7
(Other Notes) .....	7
(Segment Information) .....	8
(Significant Subsequent Event) .....	8

## 1. Qualitative Information on Quarterly Financial Statements

### (1) Explanation of Business Results

During the six months ended September 30, 2019, the Japanese economy continued to recover gradually due to improvements in the employment and income environments. The overseas economies, notably the U.S. economy, continued on a recovery path, while the Chinese economy decelerated as reflected in its slower rate of growth.

In the Power Business Segment, the NGK Group saw a drop in demand for insulators against a backdrop of reduced capital investment by domestic electric power companies and increased competition overseas. In addition, shipment volumes of NAS batteries were poor. In the Ceramics Business Segment, while shipments of ceramic substrates for automotive catalytic converters (HONEYCERAM) dropped due to a decline in global passenger car sales, the distribution volume of gasoline particulate filters (GPF) and sensors for gasoline-fueled vehicles increased, with tightened regulation of emissions in Europe and China. In the Electronics Business Segment, the volume of beryllium copper alloy products and noise filters used in industrial equipment declined due to a delay in the recovery of market conditions caused by China–United States trade war. In the Process Technology Business Segment, sales of industrial heating systems decline due to increased competition for kilns for cathode materials used in lithium-ion batteries. In addition, the distribution volume of products for semiconductor manufacturing equipment dropped against a backdrop of reduced capital investment by semiconductor manufacturers.

As a result of the above, consolidated net sales for the six months ended September 30, 2019 decreased by 3.7% year on year to ¥219,766 million. In terms of earnings, an increase in depreciation costs in addition to a decrease in net sales, causing operating income to fall 11.4% year on year to ¥31,643 million, and ordinary income was down 13.3% to ¥29,679 million. Profit attributable to owners of the parent decreased 14.0% to ¥21,244 million due to a decrease in income before income taxes and non-controlling interests despite the recording of refund of income taxes.

By segment, the Power Business Segment posted ¥20,631 million in net sales, a decrease of 14.7% year on year, and an operating loss of ¥2,418 million, compared to an operating loss of ¥3,119 million in the same period of the previous year. In the Ceramics Business Segment, net sales increased by 4.5% year on year to ¥128,185 million and operating income increased by 7.2% year on year to ¥30,932 million. In the Electronics Business Segment, net sales decreased by 6.6% year on year to ¥28,272 million and operating income increased by 35.3% year on year to ¥421 million. In the Process Technology Business Segment, net sales decreased by 16.0% year on year to ¥44,098 million and operating income decreased by 72.1% year on year to ¥2,699 million.

### (2) Explanation of Financial Position

As of September 30, 2019, total assets were ¥864,732 million, an increase of ¥1,096 million from the previous fiscal year-end. This was mainly due to increases in tangible assets and inventories despite decreases in securities, cash and bank deposits and notes and accounts receivable trade.

Total liabilities increased by ¥3,144 million from the previous fiscal year-end to ¥377,535 million. This was mainly due to increase in long-term borrowings.

Total net assets stood at ¥487,196 million, or ¥2,048 million lower than the previous fiscal year-end, due to decreases in foreign currency translation adjustments and unrealized gain on available-for-sale securities despite an increase in retained earnings.

### (3) Explanation of Forward—looking Statements including Forecasts for Consolidated Financial Statements

With regard to the financial forecasts for the full year ending March 31, 2020, both net sales and profits are expected to fall short of the previous forecasts as a result of following factors including a stronger yen compared to the previous assumption (USD 1/JPY 110, EUR 1/JPY125), a decline in passenger car sales in China and Europe in the Ceramics Business Segment and a delay in the recovery of demand for semiconductor manufacturing equipment in the Process Technology Business Segment.

The consolidated financial results forecasts for the second half of the fiscal year assume that the yen trades at ¥105 to the U.S. dollar and ¥115 to the euro. (Average exchange rates during the period: ¥107 to the U.S. dollar and ¥118 to the euro)

Forecasts of consolidated financial results for the fiscal year ending March 31, 2020

(Millions of yen)

April 1, 2018 - March 31, 2019	Net sales	Operating income	Ordinary income	Profit attributable to owners of parent	Profit per share (yen)
Previous forecast (A)	490,000	70,000	71,000	47,000	146.06
<b>Revised forecast (B)</b>	<b>450,000</b>	<b>60,000</b>	<b>60,000</b>	<b>42,000</b>	<b>131.28</b>
Change (B-A)	(40,000)	(10,000)	(11,000)	(5,000)	-
Change (%)	(8.2)	(14.3)	(15.5)	(10.6)	-
For Reference: Results from previous year (the year ended March 31, 2019)	463,504	64,705	64,410	35,506	110.35

Above financial results forecasts are based on information that are currently available and actual results may differ materially from those in the forecasts due to various factors.

**2. Consolidated Financial Statements and Notes**  
**(1) Consolidated Balance Sheet**

(Millions of yen)

	As of September 30, 2019	As of March 31, 2019
<b>Assets</b>		
Current assets		
Cash and bank deposits	89,863	97,133
Notes and accounts receivable trade	99,149	106,413
Securities	54,020	67,029
Inventories	160,661	148,031
Other	23,127	24,886
Allowance for doubtful accounts	(121)	(124)
Total current assets	426,700	443,370
Non-current assets		
Tangible assets		
Buildings and structures	101,931	94,934
Machinery and vehicles	151,677	135,880
Other	94,920	95,247
Total tangible assets	348,529	326,061
Intangible assets	3,477	3,700
Investments and other assets		
Investment securities	64,692	69,860
Other	21,635	20,790
Allowance for doubtful accounts	(303)	(147)
Total investments and other assets	86,024	90,503
Total non-current assets	438,031	420,265
<b>Total assets</b>	<b>864,732</b>	<b>863,636</b>

(Millions of yen)

	As of September 30, 2019	As of March 31, 2019
<b>Liabilities</b>		
Current liabilities		
Notes and accounts payable trade	47,179	51,353
Short-term borrowings	6,136	4,230
Current portion of long-term borrowings	28,359	29,198
Income taxes payable	※ 1 11,411	※ 1 11,731
Provision for NAS battery safety measures	1,813	2,029
Provision for loss related to competition law	1,177	1,177
Other	44,135	48,065
<b>Total current liabilities</b>	<b>140,213</b>	<b>147,786</b>
Long-term liabilities		
Bonds payable	25,000	25,000
Long-term borrowings	181,434	170,994
Net defined benefit liability	21,065	20,934
Other	9,822	9,675
<b>Total long-term liabilities</b>	<b>237,322</b>	<b>226,604</b>
<b>Total liabilities</b>	<b>377,535</b>	<b>374,391</b>
<b>Net assets</b>		
Shareholders' equity		
Common stock	69,849	69,849
Capital surplus	71,946	71,978
Retained earnings	356,523	343,323
Treasury stock	(12,016)	(12,122)
<b>Total shareholders' equity</b>	<b>486,303</b>	<b>473,029</b>
Accumulated other comprehensive income		
Unrealized gain on available-for-sale securities	18,330	21,260
Deferred gain (loss) on derivatives under hedge accounting	(14)	(136)
Foreign currency translation adjustments	(23,212)	(11,056)
Defined retirement benefit plans	(5,286)	(5,580)
<b>Total accumulated other comprehensive income</b>	<b>(10,182)</b>	<b>4,486</b>
Stock acquisition rights	915	923
Non-controlling interests	10,160	10,805
<b>Total net assets</b>	<b>487,196</b>	<b>489,245</b>
<b>Total liabilities and net assets</b>	<b>864,732</b>	<b>863,636</b>

(2) Consolidated Statement of Income and Consolidated Statement of Comprehensive Income  
**Consolidated Statement of Income**

(Millions of yen)

	Six months ended September 30, 2019	Six months ended September 30, 2018
<b>Net sales</b>	<b>219,766</b>	<b>228,163</b>
Cost of sales	151,539	156,717
<b>Gross profit</b>	<b>68,227</b>	<b>71,445</b>
Selling, general and administrative expenses	36,583	35,711
<b>Operating income</b>	<b>31,643</b>	<b>35,733</b>
Non-operating income		
Interest income	267	362
Dividend income	706	650
Foreign exchange gain	—	495
Gain on valuation of derivatives	103	—
Other	576	391
Total non-operating income	1,653	1,900
Non-operating expenses		
Interest expense	1,473	1,342
Equity in loss of unconsolidated subsidiaries and associated companies	558	622
Foreign exchange loss	394	—
Loss on valuation of derivatives	—	738
Other	1,191	694
Total non-operating expense	3,617	3,398
<b>Ordinary income</b>	<b>29,679</b>	<b>34,234</b>
Extraordinary income		
Gain on sales of fixed assets	193	37
Gain on sales of investment securities	311	35
Total extraordinary income	505	73
Extraordinary loss		
Loss on sales and disposals of fixed assets	277	234
Impairment loss	1,353	1,462
Provision of reserve for loss related to competition law	—	178
Total extraordinary loss	1,631	1,875
<b>Income before income taxes and non-controlling interests</b>	<b>28,553</b>	<b>32,433</b>
Income taxes-current	8,013	6,779
Refund of income taxes	※ 1 (425)	—
Income taxes-deferred	80	902
Income taxes-total	7,668	7,682
<b>Profit</b>	<b>20,885</b>	<b>24,750</b>
Profit (loss) attributable to non-controlling interests	(359)	45
<b>Profit attributable to owners of parent</b>	<b>21,244</b>	<b>24,705</b>

**Consolidated Statement of Comprehensive Income**

(Millions of yen)

	Six months ended September 30, 2019	Six months ended September 30, 2018
<b>Profit</b>	<b>20,885</b>	<b>24,750</b>
Other comprehensive income		
Unrealized gain(loss) on available-for-sale securities	(2,931)	1,271
Deferred gain on derivatives under hedge accounting	129	43
Foreign currency translation adjustments	(12,354)	5,376
Defined retirement benefit plans	224	681
Share of other comprehensive (loss) income of associates accounted for by using the equity method	14	(120)
Total other comprehensive income	(14,917)	7,252
<b>Comprehensive income</b>	<b>5,967</b>	<b>32,002</b>
Comprehensive income attributable to:		
Owners of parent	6,575	31,808
Non-controlling interests	(607)	193



**(3) Notes to Consolidated Financial Statements**  
**(Note on the Assumption as a Going Concern)**  
Not applicable

**(Significant Changes in Stockholder's Equity)**  
Not applicable

**(Changes in Accounting Policy)**

The NGK Group's subsidiaries reporting under IFRS have applied IFRS 16 "Leases" from the three months ended June 30, 2019. Accordingly, lessees in principal recognize all leases as assets and liabilities on the balance sheet. The NGK group applies this standard in accordance with transitional treatment of IFRS 16.

The impact of this change on the consolidated financial statements for the six months ended September 30, 2019 is insignificant.

**(Additional Information)**

(Action filed for the revocation of correction and correction for the subsequent fiscal years based on transfer pricing taxation)

With respect to transactions between NGK and its Polish subsidiary from the fiscal year ended March 31, 2007 through the fiscal year ended March 31, 2010, NGK received a correction based on transfer pricing taxation issued by the Nagoya Regional Taxation Bureau in March 2012. While NGK made a payment of approximately ¥6.2 billion in tax penalties including local taxes, it filed a complaint. NGK later requested the Nagoya National Tax Tribunal to carry out an administrative review, and on June 24, 2016, received a written verdict, which partially rescinded the correction. However, it went only so far as to refund approximately ¥0.1 billion of corporation taxes and local taxes, etc. Believing that cancellation should be made in the full amount, NGK filed an action for revocation of the correction with the Tokyo District Court on December 20, 2016. NGK believes that it could still take a considerable amount of time before judgment is passed on the claim.

With failure to settle the above-mentioned action filed for revocation of correction, on June 23, 2017, NGK received a correction notice based on transfer pricing taxation with respect to transactions between NGK and its Polish subsidiary for the fiscal year ended March 31, 2011 through the fiscal year ended March 31, 2015. Accordingly, NGK made a payment of ¥8.5 billion in tax penalties for fiscal years March 31, 2011 through March 31, 2015. NGK subsequently requested the Nagoya National Tax Tribunal to carry out an administrative review, and on July 5, 2019, received a written verdict, which partially rescinded the correction. However, it went only so far as to refund approximately ¥0.4 billion of corporation taxes and local taxes, etc. NGK plans to pursue revocation of correction in its entirety and take the required measures in accordance with laws and regulations.

In light of the above, NGK estimated tax amounts for the said period based on the premise that it would be subject to the said correction for fiscal years subsequent to March 31, 2016, and recognized the amounts in the financial statements.

**(Other Notes)**  
**(Consolidated Balance Sheet)**

**※1. Income taxes payable**

With respect to transactions between NGK and its Polish subsidiary, NGK received a correction notice based on transfer pricing taxation on June 23, 2017. Therefore, the amount includes estimated tax amounts based on the premise that NGK would be subject to the said correction for the fiscal years subsequent to March, 2016.

**2. Contingent liabilities**

The NGK Group is subject to an international investigation on the situation of competition. Since the receiving of a subpoena by a U.S. subsidiary of NGK from the U.S. Department of Justice (DOJ) in 2011, NGK has cooperated in the investigation concerning ceramic substrates for catalytic converters including establishing the Independent Committee in 2012. In September, 2015, NGK entered into a Plea Agreement with DOJ, agreeing to pay a fine of US\$65.3 million based on charges that it violated U.S. laws including the antitrust law in connection with some transactions for ceramic substrates for catalytic converters, and paid the total amount in November 2015. We have entered into negotiations for compensation for damages with the relevant customers. In addition to some customers requiring monetary compensation, civil lawsuits (class action) have also been filed.

In consideration of such progresses, the NGK Group made an estimate of potential losses, and recognized the estimated amount as of the end of six months ended September 30, 2019, as "provision for loss related to competition law," however, additional losses may arise with the emergence of new facts. Overall details of the investigation and negotiations are not disclosed because they may put the NGK Group at a disadvantage.

**(Consolidated Statement of Income)**

**※1. Refund of income taxes**

Year ended September 30, 2019 (From April 1, 2019 to September 30, 2019)

The amount of tax refunded following the receipt of a written verdict, which partially rescinded the correction based on transfer pricing taxation on tax penalties paid by NGK with respect to transactions between NGK and its Polish subsidiary, issued by the Nagoya National Tax Tribunal on July 5, 2019.

**(Segment Information)**

(1) Six months ended September 30, 2019( from April 1, 2019 to September 30, 2019 )

(Millions of yen)

	Business Segment					Elimination or Adjustment	Consolidated
	Power	Ceramics	Electronics	Process Technology	Total		
Sales							
Sales to customers	20,595	128,176	28,271	42,723	219,766	—	219,766
Intersegment sales	35	8	1	1,375	1,420	(1,420)	—
Total sales	20,631	128,185	28,272	44,098	221,187	(1,420)	219,766
Operating income(loss)	(2,418)	30,932	421	2,699	31,634	9	31,643

(Notes) Elimination or adjustment of operating income (loss) is an adjustment of intersegment transactions.

(2) Six months ended September 30, 2018 ( from April 1, 2018 to September 30, 2018 )

(Millions of yen)

	Business Segment					Elimination or Adjustment	Consolidated
	Power	Ceramics	Electronics	Process Technology	Total		
Sales							
Sales to customers	24,177	122,628	30,257	51,100	228,163	—	228,163
Intersegment sales	22	2	—	1,392	1,416	(1,416)	—
Total sales	24,200	122,630	30,257	52,492	229,580	(1,416)	228,163
Operating income(loss)	(3,119)	28,860	311	9,676	35,729	4	35,733

(Notes) Elimination or adjustment of operating income (loss) is an adjustment of intersegment transactions.

**(Significant Subsequent Event)**

(Acquisition of Own Shares and Cancellation of Treasury Shares)

NGK hereby announces that, at the meeting of the Board of Directors held on October 31, 2019, it has resolved the acquisition of own shares pursuant to the provisions of Article 156 of the Companies Act, applied by replacing terms pursuant to the provisions of Article 165, paragraph 3 of said Act, and has resolved the cancellation of treasury shares pursuant to the provisions of Article 178 of the Companies Act, as described below.

1. Reasons for the acquisition of own shares and cancellation of treasury shares  
To improve capital efficiency and enable NGK to flexibly exercise its capital policy in response to the changing managerial environment.
2. Details of matters pertaining to the acquisition of own shares
  - (1) Types of shares to be acquired Shares of common stock
  - (2) Total number of shares to be acquired Up to 7 million shares  
(2.2% of the total number of outstanding shares excluding treasury shares)
  - (3) Total value of shares to be acquired Up to 10 billion yen
  - (4) Acquisition period From November 1, 2019 to February 21, 2020
  - (5) Acquisition method Market purchases
  - (6) Plan for the acquired shares All the acquired shares to be cancelled
3. Details of matters pertaining to the cancellation of treasury shares
  - (1) Types of shares to be cancelled Shares of common stock
  - (2) Total number of shares to be cancelled All of the shares acquired as stated in 2 hereinabove
  - (3) Schedule date of cancellation March 31, 2020 (planned)

(Sale of associated company's shares)

NGK hereby announces that, at the meeting of the Board of Directors held on October 31, 2019, it has resolved the subscription to the tender offer by METAWATER Co. Ltd ("METAWATER").

1. Reasons for sale  
To enhance NGK's corporate value
2. Counterparty the shares sold to  
METAWATER Co. Ltd
3. Selling period  
From October 30, 2019 to November 27, 2019 (Tender offer period)
4. Details of associated company subject to be sold  
Company name: METAWATER Co. Ltd  
Business: Design and construction of equipment for water treatment plants, sewage treatment plants, and waste treatment facilities; design, manufacture, and sale of various devices; implementation of repair work; provision of services including operation management.  
Relationships with the company: Sales of industrial ceramics products and equipment.
5. Number and value of shares to be sold  
Total number of shares to be sold: 2 million shares  
Total value of shares to be sold: 6,804 million yen  
With regard to the tender offer, while the total shareholding expected to be acquired by METAWATER is set at up to 4.3 million shares, not all the 2 million shares for the subscription NGK owns may be sold depending on the subscription status of other shareholders.  
The impact herein on the consolidated financial results is insignificant.
6. Shareholding ratio after compilation of the sale  
21.22%  
The shareholding ratio hereinabove is calculated based on the following premise that completion of the tender offer, that all 2 million of METAWATER shares for subscription that NGK owns are purchased, and that the number of METAWATER's outstanding shares including treasury shares as of September 30, 2019.