

February 14, 2018

# Consolidated Financial Results for the Fiscal Year Ended December 31, 2017 [Japanese GAAP]

Listed company name: Toyo Tanso Co., Ltd.

Stock exchange listing: Tokyo Stock Exchange, 1st Section

Stock code: 5310

Location of headquarters: Osaka, Japan

Website: http://www.toyotanso.co.jp Representative: Takashi Konishi, President

Contact: Shigeki Masuda, General Manager,

Finance and Accounting Department

TEL: 81-6-6472-5811 (from overseas)

Scheduled date for ordinary general

meeting of shareholders: March 29, 2018 Scheduled date for dividend payment: March 30, 2018

Scheduled date for submission of

securities report: March 30, 2018

Supplementary materials for

financial summaries: Yes

Financial results briefing: Yes (for securities analysts and institutional investors)

# 1. Consolidated financial results for the fiscal year ended December 31, 2017

(From January 1, 2017 to December 31, 2017)

#### (1) Operating results

(Millions of yen, rounded down)

					(Perce	entages ind	icate year-on-year	changes.)
	Net sales		Operating in	come	Ordinary inc	come	Profit attributa owners of pa	
		%		%		%		%
Fiscal year ended December 31, 2017	35,240	8.6	3,708	468.2	3,719	390.0	3,020	963.0
Fiscal year ended December 31, 2016	32,464	(8.7)	652	(17.4)	759	(17.3)	284	(29.4)

Note: Comprehensive income:

Fiscal year ended December 31, 2017 3,478 million yen (-%) Fiscal year ended December 31, 2016 (1,055) million yen (-%)

	Profit attributable to owners of parent per share (basic)	Profit attributable to owners of parent per share (diluted)	Return on Equity	Ordinary income/total assets	Operating income/net sales
	yen	yen	%	%	%
Fiscal year ended December 31, 2017	145.52	145.25	5.2	5.2	10.5
Fiscal year ended December 31, 2016	13.71	_	0.5	1.1	2.0

Reference: Equity in earnings of affiliates

December 31, 2017 102 million yen December 31, 2016 98 million yen

# (2) Financial position

(Millions of yen, rounded down)

(2) I munetat post	2011		(1411111	ons of yen, rounded down)
	Total assets	Net assets	Equity ratio	Net assets per share
			%	yen
As of December 31, 20	17 74,223	60,986	81.0	2,884.66
As of December 31, 20	16 69,797	58,182	81.4	2,741.06
Dece	rs' equity ember 31, 2017 ember 31, 2016	60,140 million yen 56,831 million yen	ACIII	
(3) Cash flows			(Milli	ons of yen, rounded down)
	Cash flows from operating activities	Cash flows from investing activities	Cash flows from financing activities	Cash and cash equivalents at end of period
Fiscal year ended December 31, 2017	6,972	(5,951)	(1,216)	6,361
Fiscal year ended December 31, 2016	5,120	(4,127)	(1,270)	6,424

# 2. Dividends

(Millions of yen, rounded down)

		Dividends per share (yen)						Ratio of
	First quarter -end	Second quarter -end	Third quarter -end	Year -end	Total (Full year)	Total dividends (annual)	Payout ratio (consolidated)	dividends to net assets (consolidated)
	yen	yen	yen	yen	yen		%	%
Year ended December 31, 2016	-	0.00	-	25.00	25.00	518	182.4	0.9
Year ended December 31, 2017	-	0.00	-	30.00	30.00	625	20.6	1.1
Year ending December 31, 2018 (Forecast)	-	0.00	-	40.00	40.00		25.3	

# 3. Consolidated results forecast for the fiscal year ending December 31, 2018 (From January 1, 2018 to December 31, 2018)

(Millions of yen, rounded down)

(Percentages indicate year-on-year changes.)

	Net sa	les	Operating i	income	Ordinary	income	Profit attrib to owner parer	rs of	Profit attributable to owners of parent per share
		%		%		%		%	yen
Six months ending June 30, 2018	20,700	25.0	2,200	65.9	2,300	103.5	1,700	50.5	81.54
Fiscal year ending December 31, 2018	39,500	12.1	4,400	18.6	4,500	21.0	3,300	9.2	158.29

#### \* Others

## (1) Changes in significant subsidiaries during the period under review:

(Changes in specified subsidiaries accompanying changes in scope of consolidation): None

New subsidiaries: \_\_\_ (name of company(ies))

Excluded subsidiaries: \_\_\_ (name of company(ies))

#### (2) Changes in accounting policies and accounting estimates and restatements

- 1) Changes in accounting policies due to revisions of accounting standards, etc.: None
- 2) Changes in accounting policies other than 1): None
- 3) Changes in accounting estimates: None
- 4) Restatements: None

#### (3) Number of shares outstanding (common stock)

1) Number of shares outstanding at the end of period (including treasury shares)

As of December 31, 2017 20,865,488 shares As of December 31, 2016 20,750,688 shares

2) Number of treasury shares at the end of period

As of December 31, 2017 17,219 shares As of December 31, 2016 17,169 shares

3) Average number of shares during the period

Fiscal year ended December 31, 2017 20,759,629 shares Fiscal year ended December 31, 2016 20,733,519 shares

# Reference: SUMMARY OF NON-CONSOLIDATED FINANCIAL STATEMENTS

# Non-consolidated financial results for the fiscal year ended December 31, 2017

(From January 1, 2017 to December 31, 2017)

#### (1) Operating results

(Millions of yen, rounded down) (Percentages indicate year-on-year changes.)

_	Net sale	S	Operating in	ncome	Ordinary in	come	Net incom	me
		%		%		%		%
Fiscal year ended December 31, 2017	24,324	6.2	2,113	-	2,533	792.6	1,866	923.7
Fiscal year ended December 31, 2016	22,903	(4.9)	36	(91.4)	283	(80.7)	182	(69.5)

	Net income per share	Diluted net income per share
	yen	yen
Fiscal year ended December 31, 2017	89.89	89.73
Fiscal year ended December 31, 2016	8.79	-

(Note) Since y-o-y change rate in operating income in the fiscal year ended on December 31, 2017 exceeds 1,000%, it is indicated with "-."

#### (2) Financial position

(Millions of yen, rounded down)

	Total assets	Net assets	Equity ratio	Net assets per share
			%	yen
As of December 31, 2017	55,799	45,611	81.6	2,184.76
As of December 31, 2016	53,509	43,950	81.9	2,114.95

Reference: Shareholders' equity

December 31, 2017 45,548 million yen December 31, 2016 43,850 million yen

#### \* The financial results report is not subject to audit procedures.

## \* Disclaimer regarding appropriate use of forecasts and related points of note

(We urge you to be cautious in relying on forward-looking statements.)

Forward-looking statements such as the earnings forecasts in this material are based on currently available information and certain assumptions deemed rational, and are not intended as a guarantee that these forecasts will be achieved. Accordingly, actual results may differ significantly from these forecasts due to various factors. For more information on the preconditions of the forecasts and on precautionary notes concerning the usage of these forecasts, please refer to "(4) Forecasts" under "1. Overview of Business Results" on page 4 of the Attached Documents.

(How to acquire supplementary materials for financial summaries and information disclosed at our financial results briefing)

We are scheduled to hold a financial results briefing for securities analysts and institutional investors on February 19, 2018. The materials distributed at the briefing are scheduled to be disclosed on TDnet and our website on that same day.

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# 1. Overview of Business Results

#### (1) Overview of Business Results in the Fiscal Year Ended December 31, 2017

In the consolidated fiscal year under review, the US economy continued to expand on the back of an increase in personal consumption and capital spending, while Europe continued to experience a gradual recovery, despite weaknesses in some sectors due to the UK's exit from the EU and uncertainty over policies. Emerging economies such as China recovered overall. The Japanese economy also made a gradual recovery, with improvements in corporate earnings and employment conditions attributable to economic measures taken by the government.

In this environment, the carbon brush market underperformed, but the solar cell market was strong due to higher demand, particularly from China. Demand continues to expand and remained strong in the markets for LED applications and semiconductor applications, and the market for general industries applications also remained firm.

The business environment surrounding the Group remains harsh as a result of heightened competition with other companies. However, the Group has been achieving solid results by steadily meeting demand for mainstay products such as special graphite products, and also by taking on various business structural reform measures with a sense of urgency, such as cutting fixed costs and consolidating bases.

As a result, in the consolidated fiscal year under review, net sales rose 8.6% year on year to 35,240 million yen, operating income rose 468.2% to 3,708 million yen, ordinary income rose 390.0% to 3,719 million yen, and profit attributable to owners of parent rose 963.0% to 3,020 million yen.

The overall performance of each business segment was as follows. (Please refer to "6. Others" for an overview of each product category.)

#### Japan

In addition to strong sales of semiconductor and mechanical applications, other categories were also solid, and we endeavored to improve profitability. As a result, net sales in Japan rose 5.5% year on year to 18,032 million yen and operating income increased 582.0% to 2,373 million yen.

#### **United States**

Although sales of solar cell applications were weak, LED applications were solid and we endeavored to improve earnings. As a result, net sales rose 2.1% to 2,540 million yen and operating loss was 134 million yen (compared to a 517-million yen operating loss in the previous fiscal year).

### Europe

Although electronics-related products and metallurgical applications were firm, costs increased due to facility expansions. As a result, net sales in Europe rose 3.5% to 3,021 million yen and operating loss was 18 million yen (compared to a 26-million yen operating profit in the previous fiscal year).

#### Asia

Customers' capital investment in the second half of the fiscal year under review contributed to solar cell applications, while metallurgical applications were also strong and efforts to improve profitability were made. As a result, net sales in Asia rose 16.9% to 11,646 million yen and operating income increased 107.5% to 1,212 million yen.

# (2) Overview of Financial Position in the Fiscal Year Ended December 31, 2017 Assets, Liabilities, and Net Assets

Total assets as of the end of the consolidated fiscal year under review increased by 4,425 million yen from the end of the previous consolidated fiscal year. This was primarily because, although property, plant and equipment fell by 779 million yen as a result of depreciation posted and inventories decreased by 659 million yen, cash and deposits increased by 3,663 million yen and accounts receivable - trade increased by 2,171 million yen.

Total liabilities increased by 1,620 million yen from the end of the previous consolidated fiscal year. This was primarily because, although interest-bearing liabilities decreased by 771 million yen, notes and accounts payable - trade increased by 182 million yen, income taxes payable increased by 831 million yen and other current liabilities increased by 978 million yen due to an increase in advances received for the contract for the Chinese high-temperature reactor—pebble-bed modules (HTR-PM).

Total net assets increased by 2,804 million yen from the end of the previous consolidated fiscal year. This was primarily because, although non-controlling interests resulting from the sale of a consolidated subsidiary decreased by 466 million yen, retained earnings increased by 2,502 million yen and foreign currency translation adjustments increased by 352 million yen.

#### (3) Overview of cash flows in the Fiscal Year Ended December 31, 2017

Cash and cash equivalents (hereinafter referred to as "funds") as of December 31, 2017, decreased by 63 million yen from the end of the previous consolidated fiscal year to 6,361 million yen on a consolidated basis.

#### (Cash Flows from Operating Activities)

Funds acquired by operating activities totaled 6,972 million yen, a 36.2% increase year on year. This was primarily because funds increased due to profit before income taxes of 3,905 million yen (a 252.3% year-on-year increase), depreciation of 3,223 million yen (a 5.6% decrease), a decrease in inventories of 804 million yen (a 16.2% decrease), an increase in notes and accounts payable - trade of 181 million yen (compared to a 349 million yen decrease in the previous fiscal year), and other 1,120 million yen (a 545.1% increase) such as an increase in advances received for the contract for the Chinese high-temperature reactor—pebble-bed modules (HTR-PM), offsetting a decrease in funds due to an increase in notes and accounts payable - trade of 2,091 million yen (compared to a 328 million yen decrease in the previous fiscal year).

### (Cash Flows from Investing Activities)

Funds used in investment activities totaled 5,951 million yen, a 44.2% increase year on year. This was primarily due to a decrease in funds from payments into time deposits of 10,276 million yen (a 56.2% increase year on year), purchase of property, plants and equipment of 2,015 million yen (a 26.5% decrease), and payments for sales of investments in capital of subsidiaries and associates resulting in change in scope of consolidation of 590 million yen, which offset an increase in funds from proceeds from withdrawals of time deposits of 6,808 million yen (a 29.7% increase).

#### (Cash Flows from Financing Activities)

Funds used in financing activities amounted to 1,216 million yen, a 4.2% decrease year on year. This was primarily due to a decrease in funds, including 742 million yen in repayments of long-term loans payable (a 0.3% increase) and 518 million yen in cash dividends paid (a 0.2% decrease).

#### (4) Forecasts

We expect capital investment and personal spending to increase in the US, and despite uncertainties around Brexit, we expect the European economy to be solid overall going forward. Although the Chinese economy is currently experiencing a modest slowdown, the recovery is expected to continue. In Japan, corporate earnings and capital spending are expected to be solid and personal spending to be firm, but uncertainties in the global economy such as volatility in financial markets and geopolitical risks affect the Japanese economy, and keep conditions unpredictable.

In the business environment in which we operate, demand for our mainstay products, such as special graphite products, is recovering, but we expect harsh competition with other companies to continue. In such conditions, the Group established TVC 2022, a new medium-term plan that will end in fiscal 2022, and worked to strengthen existing businesses and expand into new business territory to achieve further growth on the back of a business foundation strengthened by the business structure reforms we have been tackling since fiscal 2016.

Our earnings forecasts have been made on the assumption of exchange rates of 110 yen/US\$, 125 yen/EUR and 17 yen/CNY. In view of the above factors, we expect net sales of 39,500 million yen, 4,400 million yen in operating income, 4,500 million yen in ordinary income, and 3,300 million yen in profit attributable to owners of parent in the fiscal year ending December 31, 2018. As the inspection of the delivery of Chinese high-temperature reactor-pebble-bed modules (HTR-PM) is expected to be completed, this amount is included in the earnings forecast.

# (5) Basic Policy for Profit Allocation and Dividends for the Fiscal Year Ended December 31, 2017 and the Fiscal Year Ending December 31, 2018

#### (i) Basic Policy

Our basic policy for profit allocation is to make strategic investments in order to strengthen our competitiveness and enhance our value over the long term and return profits to shareholders in a continuous and stable fashion with due consideration of business results for the fiscal year, funding needs for the future expansion of our business operations, and consolidation of our business foundation. We intend to use internal reserves for capital expenditures for production facilities, development of new products, and investment in research and development.

# (ii) Dividends for the Fiscal Year Ended December 31, 2017

Based on the aforementioned policy and our business results in the fiscal year under review, we plan to pay a dividend of 30 year per share for the fiscal year ended December 31, 2017.

#### (iii) Dividends for the Fiscal Year Ending December 31, 2018

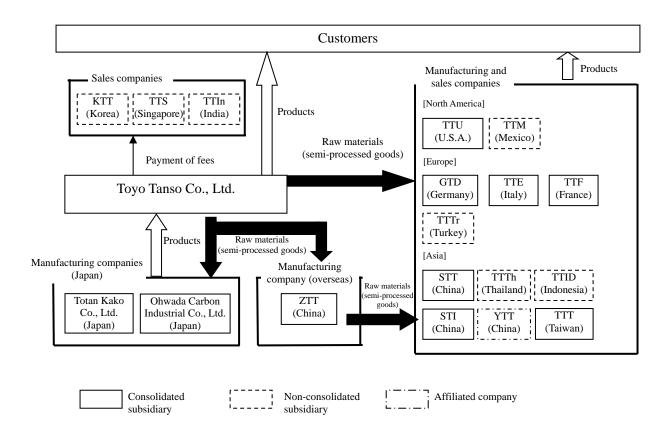
For our next round of dividends, in the interest of improving the return of profits to shareholders while also taking into account our capital investment plan aimed at future growth, we plan to increase dividends by 10 yen to pay a dividend of 40 yen per share for the fiscal year ending December 31, 2018.

### 2. Composition of Corporate Group

The Toyo Tanso Group consists of Toyo Tanso Co., Ltd., ten consolidated subsidiaries, including two domestic and eight foreign companies, seven foreign non-consolidated subsidiaries, and one overseas affiliated company accounted for using the equity method.

#### [Business Flow Chart]

The business flow chart of the Toyo Tanso Group is as follows. Only major business relations are indicated in this chart.



The formal names of the companies represented by the acronyms used in the chart above are as follows:

Company name

(TTU) ... Toyo Tanso USA, Inc.

(TTE) ... Toyo Tanso Europe S.p.A.

(TTF) ... Toyo Tanso France S.A.

(GTD) ... GTD Graphit Technologie GmbH

(STT) ... Shanghai Toyo Tanso Co., Ltd.

(STI) ... Shanghai Toyo Tanso Industrial Co., Ltd.

(ZTT) ... Toyo Tanso (Zhejiang) Co., Ltd.

(TTT) ... Toyo Tanso Taiwan Co., Ltd.

(YTT) ... Shanghai Yongxin Toyo Tanso Co., Ltd.

(KTT) ... Toyo Tanso Korea Co., Ltd.

(TTTh) ... Toyo Tanso (Thailand) Co., Ltd.

(TTS) ... Toyo Tanso Singapore Pte. Ltd.

(TTIn) ... Toyo Tanso India Private Limited

(TTTr) ... Toyo Tanso Graphite and Carbon Products Industry and Commercial A.S

(TTM) ... Toyo Tanso Mexico, S.A. de C.V.

(TTID) ... PT. Toyo Tanso Indonesia

# 3. Management Policy

#### (1) Basic Policies for the Management of the Company

The Group is dedicated to unlocking the potential of carbon to contribute to the world. We aim to serve as a company that gives back to society broadly by providing the highest quality and most advanced technology before anyone else and making people's lives more rich, without forgetting the pioneering spirit that seeks to create products never before seen—the spirit that has been with the Group since it was founded.

# (2) Target management indicators and Medium- to Long-Term Management Strategies and Issues to Address

In the business environment in which we operate, demand for our mainstay products, such as special graphite products, is becoming more volatile and, as a result, competition is intensifying. In these conditions, the Group began reforming our business structure from 2016 with the aim of shifting to a business structure that can generate steady profits that do not fluctuate with the business environment. As a result, the marginal profit ratio was improved and fixed costs were reduced, which enabled us to achieve our goal of an operating income of 3.0 billion yen on a consolidated basis one year earlier than planned, and created a foundation for further growth and development in the future.

In the medium to long term, we expect the markets four our existing businesses to mature and the supply/demand balance to remain unstable, but we also expect greater new business opportunities due to technological innovation in the energy and electronics field. Internally, the Group must improve capital efficiency, augment the functions by developing new products and expanding into new businesses, and improve the governance of Group companies.

The Group has established a new medium-term management plan, TVC 2022, which will end in 2022. This plan is aimed at resolving corporate issues while responding to medium- and long-term environmental changes. The basic concept of TVC 2022 is "challenge and innovation," and we will strive for new growth through the following basic policies and priority measures. Our management goal is to achieve an ROE of 8% or higher.

#### <Basic policies>

- 1. Strengthen competitiveness in existing businesses
- 2. Expand into new business domains
- 3. Improve capital efficiency

#### <Priority measures>

- 1) Exhaustively expand high value-added products
- 2) Create new core products for the next generation
- 3) Full-scale launch of the next strategy businesses (porous carbon, SiC wafer processing)
- 4) Pursue M&A by utilizing strategic investment budget
- 5) Improve capital and asset efficiency and strengthening shareholder returns
- 6) Strengthen basics and foundation as a truly global company

#### 4. Basic Approach to Selection of Accounting Standards

The Group will prepare its consolidated financial statements in line with Japanese standards for the near term, given that these standards enable comparison of consolidated financial statements across fiscal periods and between companies.

We plan to respond appropriately to the adoption of international accounting standards, taking into account conditions in Japan and overseas.

# 5. Consolidated Financial Statements and Notes

# (1) Consolidated Balance Sheets

	As of December 31, 2016	As of December 31, 2017
Assets		
Current assets		
Cash and deposits	12,242	15,906
Notes and accounts receivable - trade	12,083	14,255
Merchandise and finished goods	6,480	5,423
Work in process	7,674	7,801
Raw materials and supplies	1,977	2,246
Deferred tax assets	673	944
Other	505	396
Allowance for doubtful accounts	(275)	(273)
Total current assets	41,362	46,700
Non-current assets		
Property, plant and equipment		
Buildings and structures	18,840	19,025
Accumulated depreciation	(9,929)	(10,315)
Buildings and structures, net	8,911	8,710
Machinery, equipment and vehicles	47,779	48,153
Accumulated depreciation	(38,598)	(40,321)
Machinery, equipment and vehicles, net	9,181	7,832
Land	5,770	5,850
Construction in progress	769	1,422
Other	4,593	4,694
Accumulated depreciation	(3,805)	(3,867)
Other, net	788	827
Total property, plant and equipment	25,421	24,642
Intangible assets	1,011	885
Investments and other assets		
Investment securities	352	514
Deferred tax assets	37	36
Net defined benefit asset	341	454
Other	1,412	1,129
Allowance for doubtful accounts	(143)	(139)
Total investments and other assets	2,002	1,995
Total non-current assets	28,435	27,523
Total assets	69,797	74,223

	As of December 31, 2016	As of December 31, 2017
Liabilities		
Current liabilities		
Notes and accounts payable - trade	1,931	2,113
Electronically recorded obligations - operating	1,000	1,105
Short-term loans payable	1,477	833
Accounts payable - other	1,440	1,59
Income taxes payable	95	92
Provision for bonuses	348	443
Provision for directors' bonuses	-	22
Other	3,854	4,833
Total current liabilities	10,148	11,869
Non-current liabilities		
Long-term loans payable	487	36
Deferred tax liabilities	203	28
Net defined benefit liability	138	14
Asset retirement obligations	264	26
Other	372	31
Total non-current liabilities	1,466	1,36
Total liabilities	11,615	13,23
Net assets		· · · · · · · · · · · · · · · · · · ·
Shareholders' equity		
Capital stock	7,692	7,81
Capital surplus	9,534	9,65
Retained earnings	38,034	40,53
Treasury shares	(59)	(59
Total shareholders' equity	55,201	57,94
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	119	23
Foreign currency translation adjustment	1,613	1,96
Remeasurements of defined benefit plans	(102)	
Total accumulated other comprehensive income	1,629	2,19
Subscription rights to shares	100	6
Non-controlling interests	1,249	78
Total net assets	58,182	60,98
Total liabilities and net assets	69,797	74,223

# (2) Consolidated Statement of Income and Consolidated Statement of Comprehensive Income (Consolidated statement of income)

_	Fiscal year ended December 31, 2016	Fiscal year ended December 31, 2017
Net sales	32,464	35,240
Cost of sales	24,890	24,943
Gross profit	7,573	10,296
Selling, general and administrative expenses	6,921	6,588
Operating income	652	3,708
Non-operating income		
Interest income	61	58
Dividend income	28	19
Gain on currency options	25	14
Share of profit of entities accounted for using equity method	98	102
Revenue from sales of electric power	46	46
Other	149	93
Total non-operating income	410	334
Non-operating expenses		
Interest expenses	23	25
Foreign exchange losses	228	69
Loss on misappropriation	-	186
Other	51	42
Total non-operating expenses	303	322
Ordinary income	759	3,719
Extraordinary income		
Gain on sales of non-current assets	50	105
Gain on sales of investments in capital of subsidiaries and associates	-	87
Subsidy income	779	178
Insurance income	17	-
Gain on reversal of subscription rights to shares	1	0
Total extraordinary income	848	371
Extraordinary losses		
Loss on sales of non-current assets	1	1
Loss on retirement of non-current assets	41	121
Loss on valuation of shares of subsidiaries and associates	-	62
Impairment loss	* 455	-
Total extraordinary losses	498	185
Profit before income taxes	1,108	3,905
Income taxes - current	419	1,034
Income taxes - deferred	283	(275)
Total income taxes	702	759
Profit	406	3,146
Profit attributable to non-controlling interests	122	125
Profit attributable to owners of parent	284	3,020

# (Consolidated statement of comprehensive income)

	Fiscal year ended December 31, 2016	Fiscal year ended December 31, 2017
Profit	406	3,146
Other comprehensive income		
Valuation difference on available-for-sale securities	8	114
Foreign currency translation adjustment	(1,411)	94
Remeasurements of defined benefit plans, net of tax	(128)	102
Share of other comprehensive income of entities accounted for using equity method	70	20
Total other comprehensive income	(1,461)	332
Comprehensive income	(1,055)	3,478
Comprehensive income attributable to		
Owners of parent	(1,116)	3,591
Non-controlling interests	60	(112)

# (3) Consolidated Statement of Changes in Equity

Fiscal year ended December 31, 2016

		Shareholders' equity							
	Capital stock	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity				
Balance at beginning of period	7,692	9,534	37,932	(59)	55,100				
Changes of items during period									
Dividends of surplus			(518)		(518)				
Profit attributable to owners of parent			284		284				
Purchase of treasury shares				-	-				
Change of scope of equity method			335		335				
Net changes of items other than shareholders' equity									
Total changes of items during period	1	-	101	-	101				
Balance at end of period	7,692	9,534	38,034	(59)	55,201				

	Acc	cumulated other	comprehensive in	ncome			
	Valuation difference on available-for- sale securities	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Subscription rights to shares	Non- controlling interests	Total net assets
Balance at beginning of period	111	2,893	25	3,030	102	1,254	59,487
Changes of items during period							
Dividends of surplus							(518)
Profit attributable to owners of parent							284
Purchase of treasury shares							-
Change of scope of equity method							335
Net changes of items other than shareholders' equity	8	(1,279)	(128)	(1,400)	(1)	(5)	(1,406)
Total changes of items during period	8	(1,279)	(128)	(1,400)	(1)	(5)	(1,305)
Balance at end of period	119	1,613	(102)	1,629	100	1,249	58,182

		Shareholders' equity							
	Capital stock	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity				
Balance at beginning of period	7,692	9,534	38,034	(59)	55,201				
Changes of items during period									
Issuance of new shares (exercise of stock options)	98	98			197				
Stock compensation with transfer restrictions	19	19			38				
Dividends of surplus			(518)		(518)				
Profit attributable to owners of parent			3,020		3,020				
Purchase of treasury shares				(0)	(0)				
Net changes of items other than shareholders' equity									
Total changes of items during period	117	117	2,502	(0)	2,738				
Balance at end of period	7,810	9,652	40,536	(59)	57,940				

	Aco	cumulated other	comprehensive i	ncome			
	Valuation difference on available-for- sale securities	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Subscription rights to shares	Non- controlling interests	Total net assets
Balance at beginning of period	119	1,613	(102)	1,629	100	1,249	58,182
Changes of items during period							
Issuance of new shares (exercise of stock options)							197
Stock compensation with transfer restrictions							38
Dividends of surplus							(518)
Profit attributable to owners of parent							3,020
Purchase of treasury shares							(0)
Net changes of items other than shareholders' equity	114	352	103	570	(37)	(466)	66
Total changes of items during period	114	352	103	570	(37)	(466)	2,804
Balance at end of period	233	1,965	0	2,199	63	783	60,986

	Fiscal year ended December 31,	Fiscal year ended December 31,
	2016	2017
Cash flows from operating activities		
Profit before income taxes	1,108	3,905
Depreciation	3,414	3,223
Impairment loss	455	-
Share of (profit) loss of entities accounted for using equity method	(103)	(101)
Increase (decrease) in net defined benefit asset or liability	(135)	29
Increase (decrease) in long-term accounts payable (directors' retirement benefits)	(37)	-
Increase (decrease) in provision for bonuses	(19)	86
Increase (decrease) in provision for directors' bonuses	-	22
Increase (decrease) in allowance for doubtful accounts	15	(6)
Interest and dividend income	(90)	(77)
Interest expenses	23	25
Foreign exchange losses (gains)	32	27
Loss on valuation of shares of subsidiaries and associates	-	62
Gain on sales of non-current assets	(50)	(105)
Gain on sales of investments in capital of subsidiaries and associates	-	(87)
Loss on sales and retirement of non-current assets	43	123
Decrease (increase) in notes and accounts receivable - trade	328	(2,091)
Decrease (increase) in inventories	960	804
Increase (decrease) in notes and accounts payable - trade	(349)	181
Other, net	173	1,120
Subtotal	5,769	7,143
Interest and dividend income received	117	100
Interest expenses paid	(23)	(27)
Income taxes (paid) refund	(743)	(243)
Net cash provided by (used in) operating activities	5,120	6,972
Cash flows from investing activities		
Payments into time deposits	(6,580)	(10,276)
Proceeds from withdrawal of time deposits	5,249	6,808
Purchase of property, plant and equipment	(2,740)	(2,015
Proceeds from sales of property, plant and equipment	64	122
Purchase of intangible assets	(65)	(29)
Purchase of investment securities	(6)	(1)
Payments for sales of investments in capital of subsidiaries and associates resulting in change in scope of consolidation	-	(590)
Other, net	(48)	30
Net cash provided by (used in) investing activities	(4,127)	(5,951)
Cash flows from financing activities		
Net increase (decrease) in short-term loans payable	84	(60)
Repayments of long-term loans payable	(740)	(742)
Repayments of finance lease obligations	(29)	(40)
Proceeds from issuance of shares resulting from exercise of subscription rights to shares	-	182
Purchase of treasury shares	-	(0)
Cash dividends paid	(519)	(518)
Dividends paid to non-controlling interests	(66)	(37)
Net cash provided by (used in) financing activities	(1,270)	(1,216)
Effect of exchange rate change on cash and cash equivalents	$\frac{(1,276)}{(445)}$	131
Net increase (decrease) in cash and cash equivalents	(722)	(63)
Cash and cash equivalents at beginning of period	7,147	6,424
	7,147	0,424

#### (5) Notes to the Consolidated Financial Statements

(Notes regarding the premise of a going concern) Not applicable.

(Significant items that form the basis of preparations for consolidated financial statements)

- 1. Items concerning the scope of consolidation
- (1) Number of consolidated subsidiaries: 10

Names of consolidated subsidiaries

Totan Kako Co., Ltd.

Ohwada Carbon Industrial Co., Ltd.

Toyo Tanso USA, Inc.

Toyo Tanso Europe S.p.A.

Toyo Tanso France S.A.

GTD Graphit Technologie GmBH

Shanghai Toyo Tanso Co., Ltd.

Shanghai Toyo Tanso Industrial Co., Ltd.

Toyo Tanso (Zhejiang) Co., Ltd.

Toyo Tanso Taiwan Co., Ltd.

Toyo Tanso sold its stake in consolidated subsidiary Jiaxiang Toyo Tanso Co., Ltd. in the fiscal year under review, and it has thus been removed from the scope of consolidation.

#### (2) Names of non-consolidated subsidiaries

Non-consolidated subsidiaries

Toyo Tanso Korea Co., Ltd.

Toyo Tanso (Thailand) Co., Ltd.

Toyo Tanso Singapore Pte. Ltd.

Toyo Tanso India Private Limited

Toyo Tanso Graphite and Carbon Products Industry and Commercial A.S

Toyo Tanso Mexico, S.A. de C.V.

PT. Toyo Tanso Indonesia

(Reason for exclusion from the scope of consolidation)

Non-consolidated subsidiaries were not included in the scope of consolidation because their total assets, net sales, net income (loss; amount corresponding to equity), and retained earnings (amount corresponding to equity) do not have a material impact on the consolidated financial statements.

#### 2. Items concerning the application of the equity method

(1) Number of affiliated companies accounted for using the equity method: 1

Significant affiliated companies accounted for using the equity method

Shanghai Yongxin Toyo Tanso Co., Ltd.

(2) Because non-consolidated subsidiaries have very little impact on net income (loss; amount corresponding to equity) or retained earnings (amount corresponding to equity) and have no materiality overall, the equity method has not been applied to the investment account for these companies, and they have instead been valued at cost.

There are seven non-consolidated subsidiaries to which the equity method has not been applied: Toyo Tanso Korea Co., Ltd., Toyo Tanso (Thailand) Co., Ltd., Toyo Tanso Singapore Pte. Ltd., Toyo Tanso India Private Limited, Toyo Tanso Graphite and Carbon Products Industry and Commercial A.S, Toyo Tanso Mexico, S.A. de C.V., and PT. Toyo Tanso Indonesia.

#### 3. Items concerning the business years of subsidiaries

The closing date for all consolidated subsidiaries is in line with the consolidated closing date.

### 4. Items concerning accounting policies

#### (1) Valuation standards and method for significant assets

#### a. Securities

(a) Shares of subsidiaries and affiliates

Stated at cost using the moving average method

(b) Other securities

Securities with a readily determinable fair value

Stated at fair value based on market price on the consolidated closing date (valuation differences are treated through the partial direct net asset adjustment method and sales costs are calculated with the moving average method)

Securities without a readily determinable fair value

Stated at cost using the moving average method

#### b. Derivatives

Stated at fair value

#### c. Inventories

(a) Merchandise and raw materials

Mainly stated at cost using the moving average method

(The carrying amount on the balance sheet is reduced for decreases in profitability.)

(b) Finished goods, work in process, and semi-finished goods

Mainly stated at individual cost

(The carrying amount on the balance sheet is reduced for decreases in profitability.)

(c) Supplies

Mainly stated at cost based on the last purchase price

(The carrying amount on the balance sheet is reduced for decreases in profitability.)

#### (2) Depreciation method for significant depreciable assets

a. Property, plant and equipment (excluding leased assets)

The straight-line method is used.

The main useful lives are as follows.

Buildings and structures: 3 to 50 years

Machinery, equipment and vehicles: 4 to 9 years

b. Intangible assets (excluding leased assets)

The straight-line method is used. However, the straight-line method is used for software (in-house use) based on the in-house use period (five years).

c. Leased assets

Leased assets in financial lease transactions without transfer of ownership

The straight-line method is applied for useful lives for the lease period, with a residual value of zero.

#### (3) Criteria for posting significant reserves

a. Allowance for doubtful accounts

To make allowance for losses on uncollectible accounts, the expected uncollectible amount is posted based on the loss ratio for general receivables and by individually examining the collectability of specific doubtful accounts.

b. Provision for bonuses

The Toyo Tanso Group posts the liability amount of expected payments for the current consolidated fiscal year to provide for bonuses paid to employees.

c. Provision for directors' bonuses

Toyo Tanso Co., Ltd. posts the expected payment amount to provide for bonuses paid to directors.

- (4) Accounting policies for retirement benefits
  - a. Attribution method for projected retirement benefits
     The benefit formula method is used to attribute projected retirement benefits to periods until the fiscal year-end.
  - Amortization of actuarial differences and unrecognized prior service costs
     Actuarial differences are treated as a lump-sum expense in the following consolidated fiscal year.
  - c. Adoption of simplified methods for small-scale companies Some consolidated companies adopt a simplified method in which the amount paid for voluntary termination is posted as retirement benefit obligations when calculating net defined benefit liabilities and retirement benefit expenses.
- (5) Standards for converting significant foreign currency-denominated assets and liabilities to Japanese yen Foreign currency-denominated receivables and payables are converted to yen at the spot exchange rate on the consolidated closing date and the translation adjustment is treated as a profit or loss. The assets and liabilities of overseas subsidiaries are converted to yen at the spot exchange rate on the consolidated closing date, and revenue and expenses are converted to yen at the average annual exchange rate. Translation differences are then posted as part of non-controlling interests and foreign currency translation adjustment in net assets.
- (6) Scope of funds contained within the consolidated statement of cash flows Cash on hand, deposits that can be withdrawn at any time, and short-term investments with high liquidity that can easily be converted to cash and have maturities within three months of acquisition that are exposed to only a minimal price fluctuation risk are posted.
- (7) Other material items relating to the preparation of the consolidated financial statements Accounting treatment for consumption taxes The tax-excluded method is used.

#### (Additional information)

(Application of Implementation Guidance on Recoverability of Deferred Tax Assets)

The Company has applied "Implementation Guidance on Recoverability of Deferred Tax Assets" (ASBJ Guidance No. 26, issued March 28, 2016) since the consolidated fiscal year under review.

#### (Consolidated statement of income)

#### \* Impairment loss

#### Previous consolidated fiscal year (From January 1, 2016 to December 31, 2016)

The Group posted impairment losses on the following assets in the previous consolidated fiscal year.

(i) Assets for which impairment losses were recognized

(Millions of yen, rounded down)

Type	Туре	Name of Company	Location	Impairment loss
Business assets	Buildings and structures Machinery, equipment and vehicles Property, plant and equipment (other) Intangible assets	Toyo Tanso Co., Ltd.	Headquarters and others (Nishiyodogawa-ku, Osaka)	292
Sales office	Buildings and structures Land	Toyo Tanso Co., Ltd.	Tsukuba Sales Office (Hanabatake, Tsukuba)	83
Sales office	Buildings and structures	Toyo Tanso Co., Ltd.	Shizuoka Sale Office (Aoi-ku, Shizuoka)	2
Business assets	Machinery, equipment and vehicles Property, plant and equipment (other)	Jiaxiang Toyo Tanso Co., Ltd.	China (Jining, Shandong)	77

#### (ii) Reasons for recognition of impairment losses

Sales plans are expected to undercut initial forecasts for some manufacturing facilities in Toyo Tanso's porous carbon business. As a result, the utilization rate fell sharply due to a drop in the production volume, and the recoverable value fell short of the book value. Accordingly, the Company posted impairment losses.

The Company also recognized an impairment loss incurred due to the decision made at the Board of Directors meeting held on August 9, 2016 to close sales offices to consolidate them with the aim of raising efficiency and streamlining operations. As a result, the recoverable value fell short of the book value, and the Company recognized impairment losses.

The operating activities of Jiaxiang Toyo Tanso Co., Ltd. generated a loss, and having determined that there was little possibility that future cash flow would be able to recover an amount equivalent to the book value, we recognized an impairment loss.

## (iii) Impairment loss amounts and amounts by type of primary non-current assets

Buildings and structures:

Machinery, equipment and vehicles:

Property, plant and equipment (other):

Land:

In million yen

11 million yen

11 million yen

82 million yen

Romand:

0 million yen

## (iv) Grouping method

The Company groups its assets into the smallest unit that generates cash flow independently and for which income and expenditure can be continuously ascertained.

Consolidated subsidiaries group their assets into the smallest unit that generates cash flow independently.

#### (v) Method for calculating recoverable amount

The recoverable amount for the Company's business assets is calculated primarily by using the usable value, but the recoverable amount is set at zero since the usable value based on future cash flow is negative.

The recoverable amount for the Company's sales offices is set using their net realizable value based on the fixed asset tax assessment value.

The business assets of Jiaxiang Toyo Tanso Co., Ltd. are set using their net realizable value calculated using reasonable estimates taking into account transactions and other factors.

# Current consolidated fiscal year (from January 1, 2017 to December 31, 2017) Not applicable.

#### (Segment information)

[Segment information]

#### 1. Reportable Segments

The reportable segments of the Toyo Tanso Group are business components for which separate financial information is available and whose operating results are regularly reviewed by the Board of Directors in order to decide on the allocation of management resources and evaluate performance.

The Company primarily engages in the manufacture and sale of carbon products, in Japan through Toyo Tanso and domestic subsidiaries, and abroad through overseas subsidiaries based in the United States, Europe, and Asia. All overseas subsidiaries are independently managed companies. They conduct business by formulating their own comprehensive regional strategies for the products they handle.

For this reason, our business is composed of segments that are based on region-based production and sales frameworks, and is categorized into the four reportable segments of Japan, United States, Europe, and Asia.

2. Calculation methods of net sales, profits, losses, assets, and other items by reportable segment

The accounting methods of reportable segments are by and large the same as those described in "Significant items that form the basis of preparations for consolidated financial statements."

Profits of reportable segments are recorded on an operating income basis.

Inter-segment sales are based on prices in arms-length transactions.

#### 3. Information on net sales, profits, losses, assets, and other items by reportable segment

# Previous consolidated fiscal year (From January 1, 2016 to December 31, 2016)

(Millions of yen, rounded down) Reportable segments recorded in the Adjusted consolidated amount income United (Note) 1 Asia Total Japan Europe statement States (Note) 2 Net sales (1) Sales to unaffiliated customers 17,096 2,487 2.919 9,960 32,464 32,464 (2) Inter-segment sales or transfers 5,827 104 15 120 6,067 (6.067)Total 22,923 2,591 2,935 10,081 38,531 (6,067)32,464 Segment profit (loss) 347 (517)26 584 441 652 Segment assets 57,786 2,029 3,698 16,764 80,278 (10,480)69,797 Other items (1) Depreciation 2,828 68 166 353 3,416 (2) 3,414 (2) Increase in property, plant and 42 2,146 127 345 2,662 2,662 equipment and intangible assets

(Notes) 1. The adjusted amounts are as follows:

- Adjusted segment profit (loss) mainly takes into account the elimination of inter-segment transactions and unrealized income.
- (2) Adjusted segment assets mainly take into account the elimination of inter-segment transactions and unrealized income.
- 2. Segment profit (loss) has been adjusted to reflect the operating income recorded in the consolidated statement of income.

#### Current consolidated fiscal year (From January 1, 2017 to December 31, 2017)

(Millions of yen, rounded down)

		Rep		Adjusted	Amount recorded in the			
	Japan	United States	Europe	Asia	Total	amount (Note) 1	consolidated income statement (Note) 2	
Net sales							_	
(1) Sales to unaffiliated customers	18,032	2,540	3,021	11,646	35,240	-	35,240	
(2) Inter-segment sales or transfers	6,312	89	22	133	6,557	(6,557)	-	
Total	24,344	2,629	3,043	11,779	41,798	(6,557)	35,240	
Segment profit (loss)	2,373	(134)	(18)	1,212	3,433	275	3,708	
Segment assets	60,474	1,683	4,859	18,101	85,118	(10,895)	74,223	
Other items								
(1) Depreciation	2,665	58	167	333	3,225	(2)	3,223	
(2) Increases in tangible and intangible fixed assets	1,157	69	898	96	2,221	-	2,221	

(Notes) 1. The adjusted amounts are as follows:

- (1) Adjusted segment profit (loss) mainly takes into account the elimination of inter-segment transactions and unrealized income.
- (2) Adjusted segment assets mainly take into account the elimination of inter-segment transactions and unrealized income
- 2. Segment profit (loss) has been adjusted to reflect the operating income recorded in the consolidated statement of income.

#### [Related information]

### Previous consolidated fiscal year (From January 1, 2016 to December 31, 2016)

#### 1. Information by product and service

This information has been omitted because the entire business of the Company and its subsidiaries falls under the single business category of carbon product-related business.

## 2. Information by region

(1) Net sales

(Millions of yen, rounded down)

		N. d. A.	F.	Asia		D . C . 11	T 1
	Japan	North America	Europe	Asia (including China)	China only	Rest of world	Total
Net sales	13,396	2,537	3,286	13,091	9,175	152	32,464
Composition (%)	41.3	7.8	10.1	40.3	28.2	0.5	100.0

- (Notes) 1. Net sales are based on the locations of our customers, and are categorized into the relevant country or region segment according to geographical proximity.
  - 2. The major countries or regions included in each geographic segment are listed below.
    - (1) North America: United States
    - (2) Europe: France, Germany, Italy
    - (3) Asia: China, Taiwan, South Korea

## (2) Property, plant and equipment

(Millions of yen, rounded down)

				(ivining or )	en, rounaea aown)
I	Heirad Cara-	E	Asia		T-4-1
Japan	United States	Europe (ii	Asia ncluding China)	China only	Total
19,962	302	1,359	3,797	2,989	25,421

## 3. Information by major customer

This information has been omitted because we do not have any unaffiliated customers that have accounted for more than 10% of sales in the consolidated statement of income.

#### Current consolidated fiscal year (From January 1, 2017 to December 31, 2017)

#### 1. Information by product and service

This information has been omitted because the entire business of the Company and its subsidiaries falls under the single business category of carbon product-related business.

#### 2. Information by region

#### (1) Net sales

(Millions of yen, rounded down)

	Japan N		r.	Asia		D ( f 11	m . 1
	Japan	North America	Asia		China only	Rest of world	Total
Sales	14,029	2,840	3,201	14,989	10,851	179	35,240
Composition (%)	39.8	8.1	9.1	42.5	30.8	0.5	100.0

- (Notes) 1. Net sales are based on the locations of our customers, and are categorized into the relevant country or region segment according to geographical proximity.
  - 2. The major countries or regions included in each geographic segment are listed below.
    - (1) North America: United States
    - (2) Europe: France, Germany, Italy
    - (3) Asia: China, Taiwan, South Korea

### (2) Property, plant and equipment

(Millions of yen, rounded down)

_		_	Asia		m . 1
Japan	United States	Europe -	Asia (including China)	China only	Total
18,511	305	2,271	3,553	2,733	24,642

### 3. Information by major customer

This information has been omitted because we do not have any unaffiliated customers that have accounted for more than 10% of sales in the consolidated statement of income.

[Information on impairment loss for non-current assets by reportable segment]

# Previous consolidated fiscal year (From January 1, 2016 to December 31, 2016)

				(Millions o	of yen, rounded down)
	Japan	United States	Europe	Asia	Total
Impairment loss	377	-	-	77	455

Current consolidated fiscal year (From January 1, 2017 to December 31, 2017) Not applicable.

[Information on the amortization of goodwill and unamortized balance by reportable segment]

Previous consolidated fiscal year (From January 1, 2016 to December 31, 2016) Not applicable.

Current consolidated fiscal year (From January 1, 2017 to December 31, 2017) Not applicable.

[Information on gain on bargain purchase by reportable segment]

Previous consolidated fiscal year (From January 1, 2016 to December 31, 2016) Not applicable.

Current consolidated fiscal year (From January 1, 2017 to December 31, 2017) Not applicable.

# (Per share information)

	From January 1, 2016	From January 1, 2017			
	to December 31, 2016	to December 31, 2017			
Net assets per share	2,741.06 yen	2,884.66 yen			
Profit attributable to owners of parent	13.71 yen	145.52 yen			
per share (basic)	13.71 yen	143.32 yell			
Profit attributable to owners of parent	Von	1.45.25 year			
per share (diluted)	- yen	145.25 yen			

- (Notes) 1. Profit attributable to owners of parent per share (diluted) in the consolidated fiscal year under review is not noted, as there are no residual shares outstanding.
  - 2. The basis for calculating profit attributable to owners of parent per share (basic) and profit attributable to owners of parent per share (diluted) is outlined below.

	From January 1, 2016 to December 31, 2016	From January 1, 2017 to December 31, 2017			
Profit attributable to owners of parent					
per share (basic)					
Profit attributable to owners of parent (millions of yen)	284	3,020			
Amount not attributed to common shareholders (millions of yen)	-	-			
Profit attributable to owners of parent related to common shares (millions of yen)	284	3,020			
Average outstanding shares during the fiscal year (shares)	20,733,519	20,759,629			
Profit attributable to owners of parent					
per share (diluted)					
Adjustments to profit attributable to owners of parent (millions of yen)	-	-			
Increase in shares outstanding (shares)	-	37,948			
Overview of potential shares that were					
not included in the calculation of profit	Stock options authorized at the board of	Stock options authorized at the board of			
attributable to owners of parent per	directors meeting held on July 12, 2013	directors meeting held on July 12, 2013			
share (diluted) because they have no	(253,900 ordinary shares)	(160,200 ordinary shares)			
dilutive effects					

(Significant subsequent events) Not applicable.

## 6. Others

# (1) Orders and Sales by Product Category

#### i. Orders

(Unit: millions of yen)

	Year ended December 31, 2016					Year ended December 31, 2017					
Products	1Q	2Q	3Q	4Q	Fiscal year total	1Q	2Q	3Q	4Q	Fiscal year total	
Special graphite products	3,710	3,035	2,646	2,994	12,387	3,306	3,599	4,300	4,565	15,772	
Carbon products for general industries*2 (for mechanical applications)	806	756	905	658	3,127	1,320	504	417	912	3,154	
Carbon products for general industries (for electrical applications)	1,223	1,064	1,397	1,318	5,003	1,235	1,353	1,352	1,405	5,345	
Compound materials and other products	2,106	2,236	2,172	2,162	8,676	2,300	2,408	2,771	2,525	10,004	
Total	7,846	7,092	7,121	7,133	29,195	8,161	7,865	8,841	9,408	34,277	

<sup>\*1</sup> These orders were denominated in foreign currency prior to the previous quarter; discrepancies resulting from fluctuations in foreign exchange rates during the quarter under review are included in the figure for orders placed in this quarter.

## ii. Outstanding orders

(Unit: millions of yen)

	Year	r ended Dec	ember 31, 2	016	Year ended December 31, 2017					
Products	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q		
Special graphite products*2	5,567	5,231	4,755	4,816	4,937	5,041	5,546	5,994		
Carbon products for general industries*3 (for mechanical applications)	441	459	684	653	1,209	918	551	584		
Carbon products for general industries (for electrical applications)	1,067	886	965	926	876	902	911	975		
Compound materials and other products	1,950	1,917	1,983	1,841	1,987	2,193	2,503	2,589		
Total	9,026	8,495	8,388	8,237	9,011	9,056	9,513	10,144		

<sup>\*1</sup> These orders were denominated in foreign currency prior to the previous quarter; discrepancies resulting from fluctuations in foreign exchange rates during the quarter under review are included in the figure for orders placed in this quarter.

<sup>\*2</sup> Data for general carbon products (carbon for mechanical applications) includes orders that have not been officially confirmed.

<sup>\*2</sup> Outstanding orders for special graphite products include orders for the Chinese high-temperature reactor—pebble-bed modules (HTR-PM). Outstanding orders in the quarter under review include 3,191 million yen attributable to such orders.

<sup>\*3</sup> Data for general carbon products (carbon for mechanical applications) includes orders that have not been officially confirmed.

# iii. Sales performance by product category

(Unit: millions of yen)

	Year ended December 31, 2016				Year ended December 31, 2017					
Products	1Q	2Q	3Q	4Q	Fiscal year total	1Q	2Q	3Q	4Q	Fiscal year total
Special graphite products	3,996	3,631	3,361	3,230	14,219	3,655	3,768	4,168	4,499	16,093
[Electronics applications]	1,574	1,291	1,094	1,058	5,018	1,301	1,327	1,538	1,884	6,052
[General industries applications]	1,981	1,955	1,888	1,893	7,719	1,996	2,083	2,246	2,177	8,505
[Others]	440	383	378	278	1,481	357	357	383	437	1,535
Carbon products for general industries (for mechanical applications)	791	766	694	714	2,966	791	822	815	909	3,339
Carbon products for general industries (for electrical applications)	1,291	1,219	1,284	1,357	5,153	1,293	1,321	1,348	1,348	5,311
Compound materials and other products	2,458	2,261	2,091	2,309	9,120	2,171	2,209	2,476	2,457	9,314
[3 major products]	2,162	1,960	1,843	2,018	7,985	1,897	1,943	2,193	2,145	8,179
[Other products]	295	300	248	290	1,134	274	266	283	311	1,134
Related goods	247	278	181	296	1,003	202	327	319	331	1,182
Total	8,785	8,156	7,613	7,909	32,464	8,115	8,449	9,128	9,546	35,240

### (2) Overview

#### Special graphite products

In electronics applications, customer's capital investment contributed to sales of solar cell applications in the second half of the fiscal year under review, and demand for semiconductor applications was also strong. As a result, sales far exceeded levels in the same period of the previous fiscal year.

In general industries applications, sales exceeded the previous year due to ongoing steady demand for products for EDM electrodes, industrial furnace and products for continuous casting.

Therefore, special graphite products overall performed better than in the previous fiscal year.

#### Carbon products for general industries

Sales of carbon products for mechanical applications surpassed the same period of the previous fiscal year with strong ongoing demand for mainstay products such as bearings, seal materials and pantograph sliders. Sales of carbon products for electrical applications also exceeded levels in the previous year due to solid demand for small motor applications such as electrical power tools and cleaner applications, but competition with other companies remained harsh.

#### Compound materials and other products

Sales of SiC (silicon carbide)-coated graphite products exceeded levels in the same period of the previous fiscal year due to strong sales of LED applications and semiconductor applications. C/C composite products slightly undercut their performance in the previous fiscal year as demand for industrial furnace applications was weak, although semiconductor applications were robust. Sales of graphite sheet products were up over the previous fiscal year due to solid demand for metallurgical applications, automotive applications, and electronics-related applications.

Therefore, compound materials and other products overall performed better than in the previous fiscal year.