

# JSR Group ESG Data

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Unless otherwise noted, FY (Fiscal Year) means the year starting April 1st. For example, FY2019 means April 1, 2019 - March 31, 2020

For both absolute values and percentages, numerical values that fall below the shown number of digits are rounded off. For this reason, the sums of individual numbers may differ from the sum values provided.



JSR Corporation

Created June, 2020

## ◆Environment Data

### Environmental Impact of Business Activities

In FY 2019, some calculation methods, conversion factors, and the scope of calculation were revised. In the table below, calculations were retroactively performed in accordance with the disclosure guidelines of the CDP (Carbon Disclosure Project). The relevant sections are shown in red.

	Category	Items	Boundary ※			Unit	FY2015	FY2016	FY2017	FY2018	FY2020
			A	B	C						
I n p u t  D a t a	Raw materials consumption		○	○	○	1,000 kL	1,320	1,357	1,400	1,394	1,267
			○	○	○		817	824	828	823	707
			○	○	○		398	412	428	417	358
			○	○	○		104	121	144	154	202
			○	○	○		396	411	421	429	400
	Energy consumption	(Crude oil equivalent)	○	○	○	1,000 kL	268	268	266	269	251
			○	○	○		75	77	77	77	68
			○	○	○		53	67	78	83	81
			○	○	○		0.37	0.36	0.35	0.36	0.38
			○	○	○		0.18	0.18	0.18	0.18	0.18
	Water consumption	Intensity	○	○	○	kL/ton	0.53	0.57	0.56	0.58	0.48
			○	○	○		19,491	19,481	19,578	20,894	20,632
			○	○	○		14,600	14,447	14,259	15,275	14,888
			○	○	○		3,946	3,754	3,822	3,681	3,970
			○	○	○		945	1,281	1,497	1,938	1,774
		Intensity	○	○	○	m³/ton	20.0	19.6	19.0	20.5	22.5
			○	○	○		9.6	9.0	8.7	8.5	10.6
			○	○	○		9.4	10.8	10.9	13.5	10.5
			○	○	○		14,190	13,917	13,667	14,790	14,309
			○	○	○		253	354	393	313	408
			○	○	○		158	176	200	172	171
			○	○	○		4,159	4,193	4,250	4,481	4,210
			○	○	○		28.5	29.0	29.8	29.3	28.3
			○	○	○		28.5	29.0	29.8	29.3	28.3
	Seawater consumption	(For cooling)	○	○	○	1,000 m³	54,725	55,413	55,011	64,296	56,354
O u t p u t  D a t a	Total generated		○	○	○	1,000 tons	1,240	1,275	1,330	1,320	1,205
			○	○	○		731	738	752	746	661
			○	○	○		409	418	440	431	375
			○	○	○		100	118	137	144	169
			○	○	○		83	79	72	72	70
	Waste generated	Industrial waste generated	○	○	○	1,000 tons	58	55	49	50	47
			○	○	○		20	19	18	16	16
			○	○	○		4	5	5	7	7
			○	○	○		0.079	0.075	0.065	0.067	0.071
			○	○	○		0.050	0.045	0.040	0.037	0.044
		Comparison with FY2013	○	○	○	%	0.044	0.040	0.039	0.046	0.041
			○	○	○		11.1	6.2	-5.5	-4.5	-10.2
			○	○	○		0.079	0.075	0.065	0.067	0.071
			○	○	○		0.050	0.045	0.040	0.037	0.044
			○	○	○		0.044	0.040	0.039	0.046	0.041
		Recycled waste	○	○	○	1,000 tons	44	43	39	38	41
			○	○	○		25	25	23	21	23
			○	○	○		17	16	14	12	12
			○	○	○		2	2	2	5	5
			○	○	○		0.034	0.033	0.031	0.028	0.035
		Intensity	○	○	○	Tons/tons	0.042	0.037	0.032	0.028	0.032
			○	○	○		0.021	0.020	0.016	0.037	0.032
			○	○	○		0.8	1.1	0.9	0.9	1.9
			○	○	○		0	0	0	0	0
			○	○	○		0.2	0.2	0.2	0.3	1.2
	Amount of final offsite-landfills		○	○	○	1,000 tons	0.6	1.0	0.7	0.6	0.7
			○	○	○		0	0	0	0	0
			○	○	○		0.0005	0.0004	0.0004	0.0008	0.0033
			○	○	○		0.0063	0.0081	0.0053	0.0039	0.0043
			○	○	○		0.0063	0.0081	0.0053	0.0039	0.0043

\*Boundaries A: JSR Corporation B: Group companies in Japan C: Group companies in other countries

Category		Items	Boundary ※			Unit	FY2015	FY2016	FY2017	FY2018	FY2020
			A	B	C						
O u t p u t  D a t a	Greenhouse gas emissions	Scope1 + Scope2	○	○	○	1,000 tons CO <sub>2</sub>	970	1,003	1,019	1,040	973
			○	○	○		651	658	653	666	625
			○	○	○		202	199	198	199	176
			○	○	○		117	147	168	175	171
		Comparison with FY2013	○	○	○	%	0.8	1.8	1.1	3.1	-3.3
		Intensity	○	○	○	Tons/tons	0.89	0.89	0.87	0.89	0.95
			○	○	○		0.49	0.47	0.45	0.46	0.47
			○	○	○		1.17	1.24	1.23	1.22	1.01
	Waste water	Total amount of waste water	○	○	○	1,000 m <sup>3</sup>	16,147	16,912	16,968	17,587	16,049
			○	○	○		11,755	12,161	12,108	12,479	11,250
			○	○	○		3,833	3,930	3,975	4,077	3,741
		Intensity	○	○	○	m <sup>3</sup> /ton	559	821	885	1,031	1,059
			○	○	○		16.1	16.5	16.1	16.7	17.0
			○	○	○		9.4	9.4	9.0	9.5	10.0
	Waste water	COD	○	○	○	Tons	5.6	7.0	6.4	7.2	6.3
			○	○	○		493	531	530	580	495
			○	○	○		444	459	457	481	404
		Intensity	○	○	○	x10 <sup>-5</sup> tons/tons	50	72	74	98	91
			○	○	○		607	622	607	645	611
			○	○	○		121	172	167	228	243
		Total nitrogen	○	○	○	Tons	164	155	173	144	160
			○	○	○		148	139	156	129	145
			○	○	○		17	16	18	14	14
		Intensity	○	○	○	x10 <sup>-5</sup> tons/tons	202	188	207	174	220
			○	○	○		40	38	41	33	38
			○	○	○		1	1	1	1	1
	Atmospheric emissions	Total phosphorus	○	○	○	Tons	0.4	0.7	0.7	0.6	0.6
			○	○	○		0.4	0.3	0.3	0.5	0.4
			○	○	○		0.6	1.0	0.9	0.7	1.0
		Intensity	○	○	○	x10 <sup>-5</sup> tons/tons	1.0	0.6	0.7	1.1	1.0
			○	○	○		12	12	13	13	11
			○	○	○		4	5	5	4	4
		SO <sub>x</sub>	○	○	○	Tons	8	7	8	8	7
			○	○	○		0.6	0.7	0.6	0.5	0.6
			○	○	○		1.9	1.7	1.9	1.9	1.7
		NO <sub>x</sub>	○	○	○	Tons	374	338	369	341	333
			○	○	○		342	305	335	308	303
			○	○	○		32	33	34	33	31
		Intensity	○	○	○	x10 <sup>-5</sup> tons/tons	47	41	45	41	46
			○	○	○		7.9	8.0	7.8	7.8	8.2
			○	○	○		VOC				
	PRTR (In Japan only)	Amount handled	○	○	○	Tons	649	670	583	536	523
			○	○	○		0.9	0.9	0.8	0.7	0.8
			○	○	○		922,315	966,150	981,530	960,932	842,045
		Atmospheric emissions	○	○	○	Tons	697,558	734,202	739,259	725,727	632,835
			○	○	○		224,757	231,947	242,272	235,205	209,210
			○	○	○		186	163	168	134	170
		Water supply discharge	○	○	○	Tons	107	108	119	95	124
			○	○	○		79	55	50	39	45
			○	○	○		9	10	10	11	9
		Transported waste	○	○	○	Tons	2	3	2	3	2
			○	○	○		7	7	8	8	7
			○	○	○		858	796	1,031	890	897
			○	○	○		386	272	445	328	338
			○	○	○		472	524	586	562	559

\*Boundaries A: JSR Corporation B: Group companies in Japan C: Group companies other than Japan

## Accounting for Greenhouse Gas Emissions Throughout the Supply Chain

In FY 2019, some calculation methods, conversion factors, and the scope of calculation were revised. In the table below, calculations were retroactively performed in accordance with the disclosure guidelines of the CDP (Carbon Disclosure Project). The relevant sections are shown in red.

Note: From FY 2018, other indirect emissions (Scope 3) category 1 has been changed to be calculated for all JSR Group.

Category	Boundary	FY2015 Emission		FY2016 Emission		FY2017 Emission		FY2018 Emission		FY2019 Emission	
		t-CO <sub>2</sub>	ratio (%)	t-CO <sub>2</sub>	ratio (%)	t-CO <sub>2</sub>	ratio (%)	t-CO <sub>2</sub>	ratio (%)	t-CO <sub>2</sub>	ratio (%)
I. Direct emissions (Scope 1)	JSR Group	411,785	40.0	431,489	26.1	418,037	25.0	439,556	20.3	408,480	20.3
II. Energy-derived indirect emissions (Scope 2)		558,520	54.2	571,764	34.6	601,141	36.0	600,485	27.7	564,108	28.0
III. Other indirect emissions (Scope 3)		59,704	5.8	651,608	39.4	649,724	38.9	1,129,175	52.1	1,043,374	51.8
I. Direct emissions (Scope 1)	JSR Corporation	379,520	55.1	397,763	30.9	383,394	29.9	404,131	31.5	374,483	32.2
II. Energy-derived indirect emissions (Scope 2)		271,750	39.5	259,969	20.2	269,797	21.1	262,009	20.5	250,404	21.5
III. Other indirect emissions (Scope 3)		37,131	5.4	629,484	48.9	627,963	49.0	614,841	48.0	537,931	46.3
I. Direct emissions (Scope 1)	Group companies in Japan	26,160	11.9	27,476	12.8	28,088	13.2	27,067	4.7	24,818	5.0
II. Energy-derived indirect emissions (Scope 2)		175,805	80.1	171,034	79.5	169,611	79.5	172,262	30.0	151,569	30.4
III. Other indirect emissions (Scope 3)		17,536	8.0	16,641	7.7	15,665	7.3	374,074	65.2	322,890	64.7
I. Direct emissions (Scope 1)	Group companies other than Japan	6,106	5.0	6,250	4.1	6,555	3.8	8,358	2.7	9,179	2.6
II. Energy-derived indirect emissions (Scope 2)		110,965	90.9	140,761	92.3	161,734	92.7	166,215	52.8	162,135	45.8
III. Other indirect emissions (Scope 3)		5,037	4.1	5,483	3.6	6,096	3.5	140,260	44.6	182,553	51.6

### Other indirect emissions (Breakdown of Scope 3)

#### (1) JSR Corporation

Category	Boundary	FY2015 Emission		FY2016 Emission		FY2017 Emission		FY2018 Emission		FY2019 Emission	
		t-CO <sub>2</sub>	ratio (%)	t-CO <sub>2</sub>	ratio (%)	t-CO <sub>2</sub>	ratio (%)	t-CO <sub>2</sub>	ratio (%)	t-CO <sub>2</sub>	ratio (%)
Category 1	Purchased goods and services	—	—	552,567	87.8	547,887	87.2	540,653	87.9	447,580	83.2
Category 2	Capital goods	—	—	37,553	6.0	40,628	6.5	35,907	5.8	51,266	9.5
Category 3	Fuel and energy related activities not included in Scope 1 or 2	6,551	17.6	6,713	1.1	6,788	1.1	6,958	1.1	6,217	1.2
Category 4	Transportation and delivery (upstream)	12,172	32.8	14,133	2.2	13,177	2.1	13,112	2.1	10,706	2.0
Category 5	Waste from business operations	5,899	15.9	5,777	0.9	6,886	1.1	5,738	0.9	11,225	2.1
Category 6	Business travel	327	0.9	330	0.1	328	0.1	338	0.1	347	0.1
Category 7	Employee commuting	1,182	3.2	1,194	0.2	1,184	0.2	1,221	0.2	1,255	0.2
Category 8	Leased assets (upstream)	24	0.1	24	0.0	19	0.0	19	0.0	22	0.0
Category 9	Transportation and delivery (downstream)	10,916	29.4	11,156	1.8	11,065	1.8	10,894	1.8	9,312	1.7
Category 10	Processing of sold products	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Category 11	Use of sold products	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Category 12	Disposal of sold products	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Category 13	Leased assets (downstream)	59	0.2	38	0.0	0	0.0	0	0.0	0	0.0
Category 14	Franchises	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Category 15	Investments	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Total of Scope3 (Category 1- Category 15) 37,131 100 629,484 100 627,963 100 614,841 100 537,931 100  
(N/A: not applicable, —: no data)

## (2) Group companies in Japan

Category	Boundary	FY2015 Emission		FY2016 Emission		FY2017 Emission		FY2018 Emission		FY2019 Emission	
		t-CO <sub>2</sub>	ratio (%)	t-CO <sub>2</sub>	ratio (%)	t-CO <sub>2</sub>	ratio (%)	t-CO <sub>2</sub>	ratio (%)	t-CO <sub>2</sub>	ratio (%)
Category 1	Purchased goods and services	–	–	–	–	–	–	360,084	96.3	308,621	95.6
Category 2	Capital goods	–	–	–	–	–	–	–	–	–	–
Category 3	Fuel and energy related activities not included in Scope 1 or 2	–	–	–	–	–	–	–	–	–	–
Category 4	Transportation and delivery (upstream)	–	–	–	–	–	–	–	–	–	–
Category 5	Waste from business operations	16,438	93.7	15,547	93.4	14,567	93.0	12,848	3.4	13,140	4.1
Category 6	Business travel	224	1.3	224	1.3	226	1.4	237	0.1	235	0.1
Category 7	Employee commuting	809	4.6	808	4.9	816	5.2	855	0.2	847	0.3
Category 8	Leased assets (upstream)	29	0.2	24	0.1	23	0.1	19	0.0	22	0.0
Category 9	Transportation and delivery (downstream)	–	–	–	–	–	–	–	–	–	–
Category 10	Processing of sold products	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Category 11	Use of sold products	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Category 12	Disposal of sold products	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Category 13	Leased assets (downstream)	36	0.2	37	0.2	33	0.2	31	0.0	25	0.0
Category 14	Franchises	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Category 15	Investments	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Total of Scope3 (Category 1- Category 15) 17,536 100.0 16,641 100.0 15,665 100.0 374,074 100.0 322,890 100 (N/A: not applicable, – : no data)

## (3) Group Companies other than Japan

Category	Boundary	FY2015 Emission		FY2016 Emission		FY2017 Emission		FY2018 Emission		FY2019 Emission	
		t-CO <sub>2</sub>	ratio (%)	t-CO <sub>2</sub>	ratio (%)	t-CO <sub>2</sub>	ratio (%)	t-CO <sub>2</sub>	ratio (%)	t-CO <sub>2</sub>	ratio (%)
Category 1	Purchased goods and services	–	–	–	–	–	–	132,802	94.7	174,724	95.7
Category 2	Capital goods	–	–	–	–	–	–	–	–	–	–
Category 3	Fuel and energy related activities not included in Scope 1 or 2	–	–	–	–	–	–	–	–	–	–
Category 4	Transportation and delivery (upstream)	–	–	–	–	–	–	–	–	–	–
Category 5	Waste from business operations	3,595	71.4	3,854	70.3	4,427	72.6	5,382	3.8	5,633	3.1
Category 6	Business travel	181	3.6	172	3.1	180	3.0	190	0.1	203	0.1
Category 7	Employee commuting	654	13.0	621	11.3	650	10.7	685	0.5	733	0.4
Category 8	Leased assets (upstream)	600	11.9	835	15.2	839	13.8	839	0.6	896	0.5
Category 9	Transportation and delivery (downstream)	–	–	–	–	–	–	–	–	–	–
Category 10	Processing of sold products	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Category 11	Use of sold products	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Category 12	Disposal of sold products	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Category 13	Leased assets (downstream)	6	0.1	0	0.0	0	0.0	362	0.3	362	0.2
Category 14	Franchises	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Category 15	Investments	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Total of Scope3 (Category 1- Category 15) 5,037 100.0 5,483 100.0 6,096 100.0 140,260 100.0 182,553 100 (N/A: not applicable, – : no data)

## Categories of Greenhouse Gas Emissions Throughout the Supply Chain and Emissions Subject to Calculation

Category	Emissions subject to calculation
I. Direct emissions (Scope 1)	■ Direct emissions from the use of fuel and industrial processes by the reporting company
II. Energy-derived indirect emissions (Scope 2)	■ Emissions from the use of electricity and heat purchased by the reporting company
III. Other indirect emissions (Scope 3)	<ul style="list-style-type: none"> <li>• Added as a new calculation item in FY2016</li> <li>• Expansion of calculation range for some new items in FY2018</li> </ul>

### Other indirect emissions (Breakdown of Scope 3)

Category 1	<p>Emissions from activities up to the manufacture of raw materials, parts, purchased goods, sales-related materials, etc.</p> <ul style="list-style-type: none"> <li>• Calculated for JSR only from FY2016.</li> <li>• Expansion of calculation range for some new items in FY2018.</li> </ul>
Category 2	<p>Emissions from the construction and manufacturing of the reporting company's capital goods</p> <ul style="list-style-type: none"> <li>• Calculated for JSR only from FY2016.</li> </ul>
Category 3	<p>Emissions from the procurement of fuel used in power generation, etc., for electricity and heat procured from other entities</p> <ul style="list-style-type: none"> <li>• Calculated for JSR only.</li> </ul>
Category 4	<p>(1) Emissions from the distribution of raw materials, parts, purchased goods, sales-related materials, etc., up to delivery to the reporting company</p> <p>(2) Emissions (emissions from the distribution paid for by the reporting company) amount of activity from distribution services other than (1) above (transport, handling, and storage) purchased in the fiscal year of the report: Amount of shipment distribution in Japan and other countries</p> <ul style="list-style-type: none"> <li>• Calculated for JSR only.</li> </ul>
Category 5	Emissions from the transportation and processing of waste generated by the reporting company
Category 6	Emissions from employee business travel
Category 7	Emissions from employee transportation when commuting to and from the place of business
Category 8	Emissions from the operation of assets leased to the reporting company (excluding emissions calculated under Scope 1 or 2)
Category 9	<p>Emissions from the transport, storage, cargo handling, and retail sales of products (limited to those items not paid for by the reporting company)</p> <ul style="list-style-type: none"> <li>• Calculated for JSR only.</li> </ul>
Category 10	<p>Emissions from the processing of intermediate products by the reporting company</p> <ul style="list-style-type: none"> <li>• This category is excluded from calculation because the company is a chemical intermediates manufacturer.</li> </ul>

Category 11	Emissions from the use of products by users (consumers and companies) • This category is excluded from calculation because the company is a chemical intermediates manufacturer and the category is not applicable to the use of sold products.
Category 12	Emissions from the transportation and processing of products upon disposal by users (consumers and companies) • This category is excluded from calculation because the company is a chemical intermediates manufacturer.
Category 13	Emissions from the operation of assets leased to other entities
Category 14	Emissions from franchises • No emissions; business structures are not franchises.
Category 15	Emissions from investment to earn profit • This category is excluded from calculation because it is not applicable to "investment to earn profit."

## FY2019 Emissions of Chemical Substances (PRTR)

Totals for JSR Corporation (Yokkaichi Plant, Chiba Plant, Kashima Plant and Tsukuba Research Laboratories)

Ordinance designated number	Substance	Amounts handled* <sup>2</sup> (t)	Emissions			Transfers* <sup>3</sup> (t)
			Atmospheric (t)	Water (t)	Soil (t)	
1	Zinc compounds (water-soluble)	1.2	0.0	1.2	0.0	0.0
2	Acrylamide	54.8	0.0	0.0	0.0	0.0
4	Acrylic acid and its water-soluble salts	684.4	0.0	0.0	0.0	0.0
7	n-Butyl acrylate	15.0	0.0	0.0	0.0	0.0
9	Acrylonitrile	13,278.2	0.4	0.0	0.0	1.0
13	Acetonitrile	142.4	0.1	0.6	0.0	0.5
20	2-Aminoethanol	1.8	0.0	0.0	0.0	0.0
28	Allyl alcohol	2.4	0.0	0.0	0.0	1.9
30	n-Alkylbenzenesulfonic acid and its salts (limited to those with 10 to 14 alkyl group carbons and their mixtures)	489.3	0.0	0.0	0.0	0.0
36	Isoprene	42,676.5	0.2	0.0	0.0	0.3
53	Ethylbenzene	1.5	0.0	0.0	0.0	0.0
71	Ferric chloride	9.6	0.0	0.0	0.0	0.0
80	Xylene	3.5	0.0	0.0	0.0	0.0
86	Cresol	10.3	0.0	0.0	0.0	0.0
150	1,4-Dioxane	8.5	0.0	0.0	0.0	8.2
186	Dichloromethane (also called methylene chloride)	14.8	2.1	0.0	0.0	9.7
190	Dicyclopentadiene	10,163.1	0.1	0.0	0.0	37.2
202	Divinylbenzene	27.2	0.0	0.0	0.0	0.0
203	Diphenylamine	55.3	0.0	0.0	0.0	0.0
207	2,6-di-tert-butyl-4-cresol (also called BHT)	390.9	0.8	0.0	0.0	0.1
220	Water-soluble salts of dimethyldithiocarbamic acid	55.8	0.0	0.0	0.0	0.0
230	N-(1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine	163.0	0.0	0.0	0.0	0.0
240	Styrene	44,754.6	6.4	0.0	0.0	2.9
274	Tert-dodecanethiol	518.9	0.0	0.0	0.0	0.0
276	3, 6, 9-triazaundecane-1, 11-diamine (also called tetraethylenepentamine)	8.7	0.0	0.0	0.0	2.1
300	Toluene	2,035.8	76.9	0.2	0.0	167.1
321	Vanadium compounds	40.6	0.0	0.0	0.0	39.5
337	4-Vinyl-1-cyclohexene	110.2	0.0	0.0	0.0	0.6
351	1,3-Butadiene	514,790.6	5.7	0.0	0.0	0.9
392	n-Hexane	468.8	31.4	0.0	0.0	65.4
395	Water-soluble salts of peroxodisulfuric acid	624.2	0.0	0.0	0.0	0.0
411	Formaldehyde	2.2	0.0	0.0	0.0	0.0
415	Methacrylic acid	80.4	0.0	0.0	0.0	0.0
420	Methyl methacrylate	1,149.5	0.3	0.0	0.0	0.1
440	1-Methyl-1-phenylethyl hydroperoxide	1.3	0.0	0.0	0.0	0.0
	Total	632,835.1	124.4	1.9	0.0	337.7
243	Dioxins* <sup>3</sup>	—	0.0109	0.0433	0.0000	0.0000

\*1 The handling amount represents the value after base deduction (1 ton/year per place of business)

\*2 The transfer amount is the amount committed to intermediate waste service companies plus the amount discharged into public sewers

\*3 Dioxin category unit: mg-TEQ



## ◆Social Data

Human Resources Data								
		Boundary	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
Consolidated number of employees		JSR Group	Person	6,587	6,790	7,203	8,748	9,050
Non-regular employee ratio (non-regular / employee + non-regular )		JSR Group	%	10	11	9	13	8
Employee ratios by region	Japan	JSR Group	%	70	68	64	60	59
	Asia (excluding Japan)			20	18	19	16	20
	United States			8	9	13	20	16
	Europe			2	5	4	4	5

As of the end of each fiscal year (March 31)

			Boundary	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
% of female employees			List of JSR Corporation and Group companies *1	%	—	—	—	—	17.5
Number of employees		Male	JSR Corporation*3	Person	2,824	2,858	2,848	2,883	2,933
		Female			468	470	483	494	515
		Total			3,292	3,328	3,331	3,377	3,448
Number of hires	New graduates*2	Male			83	80	66	74	89
		Female			6	15	15	15	18
		Total			89	95	81	89	107
	Mid-career	Male			62	19	23	31	25
		Female			8	3	4	11	7
		Total			70	22	27	42	32
Average number of years of continuous service		Male		Year	13.2	13.0	13.2	12.9	13.3
		Female			14.2	14.8	15.1	14.8	14.7
		Total			13.3	13.2	13.5	13.2	13.5
Turnover rate for personal reasons				%	0.9	1.1	1.1	1.4	1.2
Turnover rate within three years of joining company					3.4	2.1	1.1	6.4	7.4
Layoff			Person	0	0	0	0	0	

As of the end of each fiscal year (March 31)

\*1 For the scope of data collection, please refer to the Group Companies List. Ratio of the total number of employees in the scope to 7,062 persons.

\*2 As of the beginning of each fiscal year (April 1)

\*3 Including seconded employees

Annual Total Working Hours/Annual Total Overtime Hours/Average annual salary							
	Boundary	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
Per-person total working hours	JSR Corporation*3	Hour	1,986	1,977	1,966	1,969	1,950
Per-person total overtime hours			231	225	215	220	214
% of annual paid leave taken		%	—	—	—	—	85.2
Average annual salary*4		1,000 JPY	7,465	7,424	7,432	7,551	7,546

\*3 Including seconded employees

\*4 Average annual salary includes bonuses and non-standard wages.

## ◆Social Data

### Education/Training and Overseas Assignments

	Boundary	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
Per-person total training hours <sup>*5</sup>	JSR Corporation <sup>*3</sup>	Hour	18.8	17.7	16.8	14.7	18.7
e-learning program on the Principles of Corporate Ethics	JSR Corporation & its group companies in Japan	Hour/Person	0.5	0.5	0.5	0.5	0.5
e-learning program on the confidential information management			0.5	0.5	0.5	0.5	0.5
e-learning program on anti-monopoly law・anti-corruption・subcontract law management			—	0.5	0.5	0.5	0.5
e-learning program on information security			—	—	0.5	0.5	0.5
e-learning program on quality compliance			—	—	0.5	1.0	0.5
e-learning program on safety			—	—	—	—	0.5
e-learning program on work style reform law			—	—	—	0.5	—
Number of employees sent to overseas training	JSR Corporation <sup>*3</sup>	Person	12	12	9	8	11

<sup>\*3</sup> Including seconded employees

<sup>\*5</sup> This total was calculated by including technology and skill training, employee level-based training, and other training organized by human resources departments. It therefore does not include hours spent in education provided by organizations other than

### Diversity Development

		Boundary	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
% of women hired annually per position*2	College graduates, engineering positions	JSR Corporation*3	%	9	15	20	18	26
	College graduates, administrative position			33	60	50	45	55
	3.8			3.6	3.8	4.1	4.1	
% of women in managerial positions*2								
% of female workers at unit chief level *2			%	—	—	—	—	9.4
% of female executives *2			%	—	—	—	—	9.1
Career Re-Entry System	Registered		Person	4	5	4	5	5
	Rehired			0	1	1	2	4
Hiring of foreign nationals			Person	4	3	3	1	3
Employment rate of individuals with disabilities		%	2.23	2.32	2.47	2.43	2.38	

As of the end of each fiscal year (March 31)

<sup>\*2</sup> As of the beginning of each fiscal year (April 1)

<sup>\*3</sup> Including seconded employees

## ◆Social Data

Work-Life Management Data									
Number of work-balance support benefit users			Boundary	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
Fertility treatment	Shortened working hours		JSR Corporation*3	Person	0	0	1	2	0
Childbirth	Prenatal & postpartum maternity leave system*5				20	23	21	24	19
	Childcare leave system*5	Female			20	19	24	22	36
		Male			5	11	41	38	62
		Total			25	30	65	60	98
	Extended childcare leave counseling				12	14	13	28	15
Balancing work and childcare	Shortened working hours*6				81	87	91	101	113
Balancing work and nursing care	Shortened working hours				4	2	3	1	1
	Nursing-care leave*7				6	3	8	7	11
	Extended nursing-care leave				1	1	0	1	3
Other	Discretionary labor system*1				103	107	108	111	122
	Special volunteer leave(The value in parentheses represents the total number of leave days taken)				4 (11)	3 (7)	0 (－)	7 (17)	2(2)

As of the end of each fiscal year (March 31)

\*2 As of the beginning of each fiscal year (April 1)

\*3 Including seconded employees

\*6 The telecommuting system has been implemented since fiscal 2019 by eliminating the requirements for childcare and nursing care.

\*7 At the request of employees who use various systems, we lend mobile devices that can access our corporate network from home.

\*8 Per employee request, mobile devices with remote access to the company network are provided under this benefit.

\*9 Number includes pregnant benefit users.

Number of employees eligible for work-balance support allowances	Boundary	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
Extended childcare leave allowance	JSR Corporation *3	Person	25	26	67	53	80
Post-childcare leave reinstatement allowance			15	19	16	30	28
Daycare allowance			5	6	7	15	18

As of the end of each fiscal year (March 31)

\*3 Including seconded employees

Union Data							
	Boundary	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
JSR labor union members	JSR Corporation*3	Person	3,462	3,490	3,545	3,588	3,739

As of the end of each fiscal year (March 31)

\*3 Including seconded employees

## ◆Social Data

### Workplace Accidents (calendar year)

		Boundary	Unit	2015	2016	2017	2018	2019
Number of Workplace Accidents Lost time injury ( ) Indicates non-working accident	JSR Corporation	Same as shown at left	Accident	1	0 (1)	2 (3)	0 (0)	1 (0)
	Manufacturing partners of JSR			2	1 (2)	2 (0)	1 (0)	0 (4)
	Group companies in Japan			2	2 (1)	0 (3)	2 (3)	3 (4)
	Manufacturing partners of Group companies in Japan			1	1 (1)	2 (2)	0 (2)	2 (3)
Lost time injury	Frequency <sup>*1</sup>	JSR Corporation	—	0.22	0.00	0.48	0.00	0.24
	Severity <sup>*2</sup>		—	0.01	0.00	0.04	0.00	0.00

\*2 Frequency = (Deaths or injuries in workplace accidents resulting in absence from work ÷ total working hours for all

\*3 Severity = (Total days of lost work accidents / Total number of actual working hours) x 1000

Due to a calculation error in the previous year, the figures for 2015 and 2017 have been revised (red numbers).

### Equipment accidents (calendar year)

		Boundary	Unit	2015	2016	2017	2018	2019
Number of facility accidents	leakage	JSR Corporation	Accident	1	0	1	2	1
	Fire			1	1	1	0	0
	Other			0	0	0	0	1
	leakage	Group companies in Japan	Accident	0	0	1	3	3
	Fire			1	0	0	1	2
	Other			0	0	0	0	5

## ◆ Governance Data

### Corporate Governance

			Boundary	Unit	FY2015	FY2016	FY2017	FY2018	FY2019 *1
Board of Directors	Inside Directors (executive directors)	Male	JSR Corporation	Person	5	4	4	4	5
		Female			0	0	0	0	0
		Total			5	4	4	4	5
	Independent Outside Directors (non-executive directors)	Male			3	3	3	3	3
		Female			0	0	0	0	0
		Total			3	3	3	3	3
	Total	Male			8	7	7	7	8
		Female			0	0	0	0	0
		Total			8	7	7	7	8
	% Independent Outsider				%	43	43	43	43
	% Female Director			%	0	0	0	0	0
	Term of Office			Year/Term	1	1	1	1	1
	Maximum age limit for directors			Years old	なし	なし	なし	なし	なし
Number of BOD meetings held in a fiscal year			Times	17	17	17	17	17	

\*1 Mr. Manabu Miyasaka, a former outside director (term of office from June 18, 2019 to September 5, 2019), is excluded from this table.

			Boundary	Unit	FY2015	FY2016	FY2017	FY2018	FY2019	
Audit & Supervisory Board (formerly known as Statutory Auditors Board)	Insider	Male	JSR Corporation	Person	1	1	1	1	1	
		Female			0	0	0	0	0	
		Total			1	1	1	1	1	
	Independent Outsider	Male			1	1	1	1	1	
		Female			1	1	1	1	1	
		Total			2	2	2	2	2	
	Total	Male			2	2	2	2	2	
		Female			1	1	1	1	1	
		Total			3	3	3	3	3	
	% Independent Outsider				%	67	67	67	67	67
	% Female Audit & Supervisory Board Member				%	33	33	33	33	33
	Term of office				Year/Term	4	4	4	4	4
Number of Audit & Supervisory Board meetings held in a year				Times	19	19	19	18	18	

			Boundary	Unit	FY2015	FY2016	FY2017	FY2018	FY2019 *1
Nomination Advisory Committee	Chaired by Independent Outside Director		JSR Corporation	Yes/No	Yes	Yes	Yes	Yes	Yes
	Committee Member	Independent Outside Directors		Person	3	3	3	3	3
		Inside Director			2	2	2	2	1
		Total			5	5	5	5	4
	Number of meetings held in a year			Times	1	3	3	3	3
Remuneration Advisory Committee	Chaired by Independent Outside Director		JSR Corporation	Yes/No	Yes	Yes	Yes	Yes	Yes
	Committee Member	Independent Outside Directors		Person	3	3	3	3	3
		Inside Director			1	1	1	1	1
		Total			4	4	4	4	4
	Number of meetings held in a year			Times	3	4	4	4	4

\*1 Mr. Manabu Miyasaka, a former outside director (term of office from June 18, 2019 to September 5, 2019), is excluded from this table.

## ◆ Governance Data

		Boundary	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
Number of officers*	Male	JSR Corporation	Person	20 (3)	21 (3)	24 (3)	24 (3)	25 (2)
	Female			1 (0)	1 (0)	1 (0)	1 (0)	1 (0)
	Total			21 (3)	22 (3)	25 (3)	25 (3)	26 (2)

### Remuneration for Directors and Audit & Supervisory Board Members

			Boundary	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
Remuneration for Directors	Inside Directors	Basic Remuneration (Fixed remuneration)	JSR Corporation	Million JPY	158	195	183	186	264
		Annual Bonuses (Short term performance linked remuneration)			21	48	69	50	64
		Medium-term performance-based bonus						25	48
		Restricted Stock Shares (Remuneration in share stock)			—	—	28	37	100
		Deep Discounted Stock Option (Remuneration in share stock)			30	34	9	—	—
		Sub-total			209	277	289	298	476
	Outside Directors	Basic Remuneration (Fixed remuneration)			39	40	40	42	47
		Sub-total			39	40	40	42	47
	Total				248	317	329	340	523
	Remuneration for Audit & Supervisory Board members	Inside Audit & Supervisory Board Member			Basic Remuneration (Fixed remuneration)	28	28	28	29
Sub-total			28	28	28	29	28		
Outside Audit & Supervisory Board Members		Basic Remuneration (Fixed remuneration)	15	17	17	20	22		
		Sub-total	15	17	17	20	22		
Total		43	45	45	49	50			

## ◆ Governance Data

### List of Remuneration for individual Directors paid in FY2019 \*2

Name	Position	Name of Company	Unit	Description of consolidated remuneration				
				Basic Remuneration	Restricted Stock shares	Medium-term performance-based bonus	Stock Option as Remuneration	Total
Eric Johnson	Director	JSR Corporation	Million JPY	43	19	8	26	201
	President	JSR North America Holdings, Inc.	Million JPY	55	19	8	25	
Nobuo Kawahashi	Director	JSR Corporation	Million JPY	71	9	6	17	103
Mitsunobu Koshiba	Director	JSR Corporation	Million JPY	80	9	20	20	129

\*2 the above list is limited to Directors whose annual remuneration

### Accounting Auditors

		Boundary	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
Amount of remuneration for Accounting Auditors	Remuneration for services relating to auditing or certifying the financial documents	JSR Corporation and its consolidated subsidiaries	Million JPY	69	68	67	87	116
	Remuneration for non-auditing services			16	5	24	0	0
Amount of remuneration for Accounting Auditors	Remuneration for services relating to auditing or certifying the financial documents	JSR Corporation and its consolidated subsidiaries	Million JPY	—	—	—	39	72
	Remuneration for non-auditing services			—	—	—	42	28

◆ Governance Data

Activities of Directors and Audit & Supervisory Board Members in FY2019 \*2

Name, Gender, Nationality	Title*	Age*	Tenure*	Activities	Attendance to the meetings in fiscal year ending in march 2020		
Eric Johnson, Male, U.S.A.	Representative Director and CEO	59	1 year	Mr. Johnson, as CEO and Representative Director since 2019, has been leading the expansion of the life science business as the person in charge of North America business management, and has led the management of our group by utilizing his global management experience, striving to become a company that is trusted and satisfied by all stakeholders. His extensive work experience and knowledge are used to make important decisions at meetings of the Board of Directors and to supervise the execution of duties, thereby contributing to the continuous improvement of our group's corporate value.	BOD	Times/ Times	100% 17 / 17
Nobuo Kawahashi, Male, Japan	Representative Director and President, COO	63	4 years	Mr. Kawahashi, as President and Representative Director since 2019, has supported the CEO, overseeing the elastomer, plastics and digital solutions businesses based on management policies and strategies, and supporting the foundations of our company. His extensive work experience and knowledge are used to make important decisions at meetings of the Board of Directors and to supervise the execution of duties, thereby contributing to the continuous improvement of our group's corporate value.	BOD	17 / 17	100%
Mitsunobu Koshiba, Male, Japan	Director and Chairman of the Board	64	14 years	Mr. Koshiba, as Chairman of the Board of Directors since 2019, has been strengthening corporate governance and enhancing our group's corporate value by enhancing the effectiveness of the Board of Directors. His extensive work experience and knowledge are used to make important decisions at meetings of the Board of Directors and to supervise the execution of duties, thereby contributing to the continuous improvement of our group's corporate value.	BOD	17 / 17	100%
					Nomination Advisory Committee	3 / 3	100%
					Remuneration Advisory Committee	4 / 4	100%
Kouichi Kawahashi, Male, Japan	Director and Senior Managing Officer	63	4 years	Mr. Kawasaki, as a director and adirector in charge of Manufacturing and Technology, Product Safety & Quality Assurance, Procurement, Logistics, Safety and Environment Affairs, human resources development, and diversity promotion, has been contributing to further enhancement of JSR's corporate value by utilizing his vast experience and knowledge to help the Company in making crucial decisions and to supervise the performance of duty at the BOD level.	BOD	17 / 17	100%
Hideki Miyazaki, Male, Japan	Director and Senior Managing Officer	62	2 years	Mr. Miyazaki, as a director and adirector in charge of accounting, finance and public relations, utilizing his wealth of experience and broad knowledge in finance both in Japan and overseas over many years, and is contributing to the enhancement of our group's corporate value. His extensive work experience and knowledge are used to make important decisions at meetings of the Board of Directors and to supervise the execution of duties, thereby contributing to the continuous improvement of our group's corporate value.	BOD	17 / 17	100%



Name, Gender, Nationality	Title※	Age※	Tenure※	Activities	Attendance to the meetings in fiscal year ending in march 2020
Yuzuru Matsuda, Male, Japan	Independent Outside Director	71	5 years	Mr. Matsuda, as an independent outside director, has been contributing further to the enhancement of JSR Group's corporate value by utilizing his vast experiences in management and global businesses of medical, biochemical and pharmaceutical products as well as independent viewpoints to help the Company in making crucial decisions, to supervise the performance of duty at the BOD level. In addition, he has been contributing, by appropriately acting as the Chairman of the Nomination Advisory Committee and the Remuneration Advisory Committee respectively to strengthen the Company's fair corporate governance through enhancement of fair and reasonable business judgment and transparent and sound management, thereby continually.	BOD 17 / 17 100%
					Nomination Advisory Committee 3 / 3 100%
					Remuneration Advisory Committee 4 / 4 100%
Shiro Sugata, Male, Japan	Independent Outside Director	70	4 years	Mr. Sugata, as an independent outside director, has been contributing further to the enhancement of JSR Group's corporate value by utilizing his vast experience in management and global businesses of optical application products and industrial machineries as well as independent viewpoints to help the Company in making crucial decisions, to supervise the performance of duty at the BOD level, and to strengthen the Company's fair corporate governance through enhancement of fair and reasonable business judgment and transparent and sound management.	BOD 17 / 17 100%
					Nomination Advisory Committee 3 / 3 100%
					Remuneration Advisory Committee 4 / 4 100%
Tadayuki Seki, Male, Japan	Independent Outside Director	70	2 years	Mr. Seki, as an independent outside director, has been contributing further to the enhancement of JSR Group's corporate value by utilizing his vast experiences in management and finance as a CFO of a major global trading house as well as independent viewpoints to help the Company in making crucial decisions, to supervise the performance of duty at the BOD level, and to strengthen the Company's fair corporate governance through enhancement of fair and reasonable business judgment and transparent and sound management.	BOD 16 / 17 94%
					Nomination Advisory Committee 3 / 3 100%
					Remuneration Advisory Committee 4 / 4 100%
Atsushi Kumano, Male, Japan	Full-time Audit & Supervisory Board Member	63	4 years	Mr. Kumano, as an inside full-time audit & supervisory board member, has been contributing to ensure fair and reasonable judgment for, and accountable and sound management of, the businesses of the Company by utilizing his vast experience and knowledge on the businesses of the Company and sharing them with other outside members to audit the Directors' decision-making and execution of operation.	BOD 17 / 17 100%
					Audit & Supervisory Board 18 / 18 100%
Hisako Kato, Female, Japan	Independent Outside Audit & Supervisory Board Member	71	6 years	Ms. Kato, as an independent outside audit & supervisory board member, has been contributing to ensure fair and reasonable judgment for, and accountable and sound management of, the businesses of the Company by utilizing vast financial and accounting expertise as a Certified Public Accountant and a Certified Tax Accountant as well as independent outside viewpoint to audit the Directors' decision-making and execution of operation.	BOD 17 / 17 100%
					Audit & Supervisory Board 18 / 18 100%
Sumio Moriwaki, Male, Japan	Independent Outside Audit & Supervisory Board Member	63	3 years	Mr. Moriwaki, as an independent outside audit & supervisory board member, has been contributing to ensure fair and reasonable judgment for, and accountable and sound management of, the businesses of the Company by utilizing vast expertise in legal affairs as a lawyer as well as independent outside viewpoint to audit the Directors' decision-making and execution of operation.	BOD 17 / 17 100%
					Audit & Supervisory Board 18 / 18 100%

\*1 As of June 18, 2020 (at the close of the 75th AGM of the Company)

\*2 Manabu Miyasaka, a former outside director (term of office from June 18, 2019 to September 5, 2019), is excluded from this table.

## ◆ Governance Data

Compliance									
			Boundary	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
Amount of corporate income tax paid	JSR Corporation and consolidated subsidiary in Japan		same as the left hand column	Million JPY	—	—	12,565	9,547	9,435
	Consolidated Subsidiaries in other countries				—	—	2,204	1,434	3,338
Political Donations/contribution			JSR Corporation		—	—	0	0	0
			Boundary	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
Number of CSR Committee meetings held in a year			JSR Corporation	Times	5	6	7	4	5
Violation of each country's anti-corruption laws and international standards	Number of violations		JSR Group	Times	0	0	0	0	0
	Penalty		JSR Group	JPY	0	0	0	0	0
Number of times the JSR Group hotline was used			JSR Corporation	Number	5	3	2	6	3
			Group companies		11	3	4	10	7
			Unknown		0	0	0	1	0
Number of times the supplier hotline was used			JSR Corporation	Number	0	0	0	0	0
			Group companies		0	0	0	0	0
Research and Development (R&D)									
			Boundary	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
R&D expenses			JSR Group	Billion JPY	215	197	203	249	254
			JSR Corporation	Billion JPY	164	155	165	191	205
Number of researchers			JSR Corporation	Person	707	673	680	727	747
Number of patents held	Japan		JSR Corporation	Number	3,260	3,266	3,282	3,258	2,960
	Other than Japan				3,642	3,738	3,812	3,793	3,710
	Total				6,902	7,004	7,094	7,051	6,670

## JSR Group Companies (As of 31st May, 2020)

50 consolidated companies, 7 non-consolidated companies, 8 affiliates accounted for by the equity method, and 18 scope of RC reporting

### Japan

Country	Companies' name	Business segment					Consolidated companies	Non-consolidated companies	Equity-method affiliates	RC reporting	Employees by gender
		Elastomer	Plastics	Digital Solutions	Life Sciences	Others					
Japan	JSR Micro Kyushu Co., Ltd.	●					●			※	*
	D-MEC LTD.	●					●				*
	JAPAN FINE COATINGS Co., Ltd.	●							◆		
	JSR Life Sciences Corporation		●				●			※	
	MEDICAL & BIOLOGICAL LABORATORIES CO., LTD.		●				●				
	G&G SCIENCE CO., LTD.		●				●				
	MBL Venture Capital Co.,Ltd.		●				●				
	ELASTOMIX CO., LTD.	●		●			●			※	*
	Emulsion Technology, Co., Ltd.	●		●			●			※	*
	Japan Butyl Co., Ltd.			●					◆		*
	KRATON JSR ELASTOMERS K. K.			●					◆		
	Techno-UMG Co., Ltd.				●		●			※	*
	JAPAN COLORING CO., LTD.				●		●			※	*
	JM Energy Corporation ※1					●	●				*
	LEXI Co., Ltd.		●				●				*
	Rapithela Corporation					●		●			
	JSR Active Innovation Fund, LLC,						●				
	JSR Trading Co., Ltd.	●	●	●		●	●				*
	Goko Trading Co., Ltd.			●		●	●				*
	JEY-TRANS CO., LTD.					●			◆		
	JSR Logistics & Customer Center Co., Ltd.					●	●			※	*
	JSR ENGINEERING CO., LTD.					●	●			※	*
	JSR Business Services Co., Ltd.					●	●				*
	JN System Partners Co., Ltd.					●			◆		

※ 1 : JM Energy Corporation was transferred to an equity method affiliate as of April 1, 2020.

## Korea, Taiwan, China

Country	Companies' name	Business segment					Consolidated companies	Non-consolidated companies	Equity-method affiliates	RC reporting	Employees by gender
		Elastomer	Plastics	Digital Solutions	Life Sciences	Others					
Korea	JSR Electronic Materials Korea Co., Ltd.	●							◆		
	JSR Micro Korea Co., Ltd.	●					●			※	*
	Kumho Polychem Co., Ltd.			●					◆		
	JSR Elastomer Korea Co., Ltd.			●				●			
Taiwan	JSR Micro Taiwan Co., Ltd.	●					●			※	*
China	JSR (Shanghai) Co., Ltd.	●	●	●			●				
	JSR Micro (Changshu) Co., Ltd.	●					●				
	J&W Beijing Biotech Co., Ltd. ※2		●				●				*
	MBL Beijing Biotech Co., Ltd.		●				●				*
	MBL Hangzhou Biotech Co., Ltd.		●				●				*
	Tianjin Kuo Cheng Rubber Industry Co., Ltd.			●					◆		
	ELASTOMIX(FOSHAN) CO., LTD.			●			●			※	
	JSR Trading (Shanghai) Co., Ltd.			●		●	●				*
	Techno-UMG Guangzhou Co., Ltd.				●		●				*
	Techno-UMG Hong Kong Co., Ltd.				●		●				*
	Techno-UMG Shanghai Co., Ltd.				●		●				*

※2 : J & W Beijing Biotech Co., Ltd. was excluded from the JSR Group on April 1, 2020 due to the transfer of shares.

## Southeast Asia, South Asia

Country	Companies' name	Business segment					Consolidated companies	Non-consolidated companies	Equity-method affiliates	RC reporting	Employees by gender
		Elastomer	Plastics	Digital Solutions	Life Sciences	Others					
Indonesia	PT.ELASTOMIX INDONESIA			●			●			※	*
Vietnam	JSR Trading Vietnam Co., Ltd.					●		●			*
Thailand	JSR BST Elastomer Co., Ltd.			●			●			※	*
	ELASTOMIX (THAILAND) CO., LTD.			●			●			※	
	Techno-UMG Asia Co., Ltd.				●		●				*
	JSR Trading Bangkok Co., Ltd.			●		●	●				*
India	JSR Elastomer India Private Limit			●				●			

## Europe

Country	Companies' name	Business segment					Consolidated companies	Non-consolidated companies	Equity-method affiliates	RC reporting	Employees by gender
		Elastomer	Plastics	Digital Solutions	Life Sciences	Others					
Hungary	JSR MOL Synthetic Rubber, Ltd.			●			●				*
Germany	JSR Elastomer Europe GmbH			●				●			*
	Techno-UMG Europe GmbH				●		●				*
Swiss	Selexis SA		●				●				
Belgian	JSR Micro N.V.	●	●				●			※	
	EUV Resist Manufacturing & Qualification Center N.V.	●					●			※	
	KBI Biopharma BVBA		●				●				

## North and Central America

Country	Companies' name	Business segment					Consolidated companies	Non-consolidated companies	Equity-method affiliates	RC reporting	Employees by gender
		Elastomer	Plastics	Digital Solutions	Life Sciences	Others					
USA	JSR North America Holdings, Inc.					●	●				*
	JSR Micro, Inc.	●					●			※	
	JSR Life Sciences, LLC		●				●				
	Crown Bioscience International		●				●				
	KBI Biopharma, Inc.		●				●				
	KBI Biopharma Boulder, LLC		●				●				
	MBL International Corporation		●				●				
	JSR Elastomer America, Inc.			●			●				
	Techno-UMG America, Inc				●		●				*
Mexico	ELASTOMIX MEXICO, S.A. de C.V.			●				●		※	
	JSRT Mexico S.A. de C.V.					●		●			*

## JSR Group Sustainability Report 2020

### Independent Review Report

August 31, 2020

To Eric Johnson, Representative and CEO  
JSR Corporation

#### ■ Objective of Verification

This verification is performed by the Responsible Care Verification Center with respect to the “JSR Group Sustainability Report 2020 (Online Version)” (hereinafter, “Report”), with the objective of reporting the opinions of specialists in the chemical industry concerning the following items.

- 1) The reasonableness of the calculation and aggregation methods of performance indices (numerical data) and the accuracy of the numerical data
- 2) The accuracy of provided information other than numerical data
- 3) Responsible Care activities (hereinafter “RC activities”) and CSR activities
- 4) Characteristics of the Report

#### ■ Verification Methodology

- At the Head Office: An inspection concerning the reasonableness of the aggregation method of numerical data reported from each site (office, plant) as well as the accuracy of information other than numerical data. It was conducted by interviewing relevant business managers and Report editors about the Report’s content as well as receiving necessary documents and explanation from relevant business managers and Report editors.
- At the Chiba Plant: An inspection concerning the reasonableness of the methods of calculating numerical data reported to the Head Office and the accuracy of numerical data as well as the accuracy of information provided in the Report. It was conducted by interviewing relevant business managers and Report editors, receiving necessary documents and explanations, checking those documents and explanations against evidence, and making onsite confirmations.
- The numerical data and other information provided in the Report were inspected by sampling.

#### ■ Opinion

- 1) The reasonableness of the calculation and aggregation methods of performance indices (numerical data) and the accuracy of the numerical data
  - A system has been built for the aggregation of environment-related data that automatically handles everything from the aggregation of plant data up to company-wide data compilation at the Head Office, and it is operated using a mechanism that does not involve human error.
  - For the process of calculating greenhouse gas emissions, formulas, coefficients, and other items used in calculation are presented to plants by the Head Office presents and then calculation takes place in plants and Group companies based on unified standards.
- 2) The accuracy of provided information other than numerical data
  - Information provided in the Report is accurate. Some instances of inappropriate expressions and difficult-to-understand text were identified at the drafting stage; however, they all have been corrected in the current report.
- 3) RC activities and CSR activities
  - We positively acknowledge the fact that CSR activities fulfilling the company’s social responsibility are being further evolved and that sustainability activities for the creation of value that contributes to all stakeholders are being advanced.



- We positively acknowledge the fact that the President is working to energize environmental and safety activities by participating in Head Office Environment and Safety Audits at each business establishment, commending particularly noteworthy activities by business establishments, and stating his views concerning areas for improvement. Additionally, we positively acknowledge the fact that the President establishes opportunities for dialogue with plant employees, where he conveys the “President’s thoughts” in a face-to-face manner and listens to the views of onsite personnel.
- We positively acknowledge initiatives at the Chiba Plant to utilize advanced technology in facility management, accident prevention, and workplace accident prevention, including the strengthening of equipment inspections in high places with the use of drones and the provision of experiential hazard training with virtual reality (VR).
- We verified that the rational and accurate aggregation of emissions is possible with the revised version of the “Procedure for Quantifying Greenhouse Gas Emissions (Scope 1 and Scope 2).” We verified that Scope 1 and Scope 2 are being accurately calculated and aggregated in the Chiba Plant’s numerical verifications.

#### 4) Characteristics of the Report

- We positively acknowledge the fact that the positive and negative impacts of business activities are studied in each department under the JSR Sustainability Challenge program and noted in reports (including negative aspects), and that the results of those studies are utilized in the setting of SDGs-related targets.




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NAGAMATSU Shigeki

Chief Director, Responsible Care Verification Center  
Japan Chemical Industry Association

