

*The organization name is the name at the time of recording.

Site Report (FY2018)

Domestic:	TOYO TIRE & RUBBER CO., LTD.	Sendai Plant Kuwana Plant Hyogo Manufacturing Complex Tire Technical Center Automotive Parts Technical Center Corporate Technology Center Headquarters
	Fukushima Rubber Co., Ltd.	
	Toyo Soflan Co., Ltd.	
	Ayabe Toyo Rubber Co., Ltd.	
	Orient Machinery Co., Ltd.	
Oversea:	TOYO AUTOMOTIVE PARTS (USA), INC. TOYO TIRE NORTH AMERICA MANUFACTURING INC. TOYO AUTOMOTIVE PARTS (GUANGZHOU) CO., LTD. TOYO TIRE ZHANGJIAGANG CO., LTD. TOYO TIRE (ZHUCHENG) CO., LTD. SILVERSTONE BERHAD TOYO TYRE MALAYSIA SDN BHD TOYO RUBBER CHEMICAL PRODUCTS (THAILAND) LIMITED	

Period:

January - December, 2018 Energy consumption, CO2 emissions, SOx load, NOx load,
Water withdrawal, Water discharge, Water quality load, Water pollution,
Waste, Recycled waste, Reused waste

April - March, 2018 VOC emissions, PRTR substances (Handled, Emitted, Transferred)

*Number of employees: as of the end of December, 2018

*VOC emissions: the total for substances for which at least 1 ton is used annually at each business site.

*PRTR substances: "class 1 chemical substances" are those of which at least 1 ton is used annually at each production facility, and "designated class 1 chemical substances" are those of which at least 0.5 ton is used annually at each production facility.

1. Sendai Plant

Location	Iwanuma-shi, Miyagi Japan		
Products	Automobile tires		
Energy consumption		2,163.1	(1000GJ)
CO2 emissions		160.0	(1000t-CO2)
VOC emissions		263.6	(t)
SOx load		2.51	(t)
NOx load		237.1	(t)
Water withdrawal		1,352.6	(1000t)
Water discharge		773.8	(1000t)
Water quality load	• BOD	3.08	(t)
	• COD	6.90	(t)
Water pollution	• pH	Max. 8.00	*Regulation of the law 5.8~8.6
		Min. 7.20	
		Ave. 7.70	
	• BOD	Max. 3.60 (mg/L)	*Regulation of the law 120
		Min. 0.60 (mg/L)	
		Ave. 1.91 (mg/L)	
	• COD	Max. 6.20 (mg/L)	*Regulation of the law 120
		Min. 4.50 (mg/L)	
		Ave. 5.18 (mg/L)	
	• SS	Max. 13.0 (mg/L)	*Regulation of the law 150
		Min. 2.00 (mg/L)	
		Ave. 6.00 (mg/L)	
Waste		9,193.1	(t)
Recycled waste		9,193.1	(t)
Reused waste		854.6	(t)
PRTR substances	• Handled	1,320.7	(kg)
	• Emitted	8.9	(kg)
	• Transferred	19.9	(kg)

2. Kuwana Plant

Location	Toin-cho, Inabe-gun, Mie Japan				
Products	Automobile tires, automotive parts				
Energy consumption			2,154.3	(1000GJ)	
CO2 emissions			127.2	(1000t-CO2)	
VOC emissions			378.7	(t)	
SOx load			0.91	(t)	
NOx load			82.8	(t)	
Water withdrawal			954.3	(1000t)	
Water discharge			420.4	(1000t)	
Water quality load	• BOD		0.53	(t)	
	• COD		1.08	(t)	
Water pollution	• pH	Max.	7.90	*Regulation of the ordinance 6.0~8.0	
		Min.	7.30		
		Ave.	7.53		
	• BOD	Max.	3.00	(mg/L)	*Regulation of the pollution prevention agreement with local governments 8
		Min.	<1	(mg/L)	
		Ave.	1.80	(mg/L)	
	• COD	Max.	6.00	(mg/L)	*Regulation of the pollution prevention agreement with local governments 8
		Min.	2.00	(mg/L)	
		Ave.	3.63	(mg/L)	
	• SS	Max.	3.00	(mg/L)	*Regulation of the pollution prevention agreement with local governments 10
		Min.	<2	(mg/L)	
		Ave.	2.20	(mg/L)	
Waste			5,513.7	(t)	
Recycled waste			5,504.4	(t)	
Reused waste			0.00	(t)	
PRTR substances	• Handled		1,661.7	(kg)	
	• Emitted		137.4	(kg)	
	• Transferred		61.1	(kg)	

3. Hyogo Manufacturing Complex

Location	Inami-cho, Kako-gun, Hyogo Japan			
Products	Automotive parts			
Energy consumption			68.6 (1000GJ)	
CO2 emissions			4.97 (1000t-CO2)	
VOC emissions			24.9 (t)	
SOx load			0.00 (t)	
NOx load			0.42 (t)	
Water withdrawal			179.2 (1000t)	
Water discharge			109.1 (1000t)	
Water quality load	• BOD		0.29 (t)	
	• COD		0.32 (t)	
Water pollution	• pH	Max.	8.50	*Regulation of the law 5.8~8.6
		Min.	7.40	
		Ave.	8.00	
	• BOD	Max.	4.40 (mg/L)	*Regulation of the law 100
		Min.	1.80 (mg/L)	
		Ave.	2.70 (mg/L)	
	• COD	Max.	5.10 (mg/L)	*Regulation of the law 100
		Min.	3.00 (mg/L)	
		Ave.	3.80 (mg/L)	
	• SS	Max.	3.40 (mg/L)	*Regulation of the law 90
		Min.	1.20 (mg/L)	
		Ave.	2.20 (mg/L)	
Waste			219.7 (t)	
Recycled waste			219.7 (t)	
Reused waste			0.00 (t)	
PRTR substances	• Handled		27.9 (kg)	
	• Emitted		22.5 (kg)	
	• Transferred		0.0 (kg)	

4. Tire Technical Center

Location	Itami-shi, Hyogo Japan
Energy consumption	18.0 (1000GJ)
CO2 emissions	2.27 (1000t-CO2)
Water withdrawal	8.22 (1000t)
Waste	474.2 (t)
Recycled waste	474.2 (t)
Reused waste	0.00 (t)

5. Automotive Parts Technical Center

Location	Miyoshi-shi, Aichi Japan
Energy consumption	13.2 (1000GJ)
CO2 emissions	1.88 (1000t-CO2)
Water withdrawal	13.9 (1000t)
Waste	58.9 (t)
Recycled waste	58.9 (t)
Reused waste	0.00 (t)

6. Corporate Technology Center

Location	Kawanishi-shi, Hyogo Japan
Energy consumption	17.4 (1000GJ)
CO2 emissions	1.78 (1000t-CO2)
Water withdrawal	7.68 (1000t)
Waste	60.2 (t)
Recycled waste	56.5 (t)
Reused waste	0.00 (t)

7. Headquarters

Location	Itami-shi, Hyogo Japan
Energy consumption	7.06 (1000GJ)
CO2 emissions	0.54 (1000t-CO2)
Water withdrawal	6.56 (1000t)
Waste	13.1 (t)
Recycled waste	13.1 (t)
Reused waste	0.00 (t)

Fukushima Rubber Co., Ltd.

Location	Fukushima-shi, Fukushima Japan		
Products	Automobile tires, automotive parts		
Number of Employees (Temporary Employees)	143	(21)
Energy consumption	62.0	(1000GJ)	
CO2 emissions	6.48	(1000t-CO2)	
VOC emissions	0.0	(t)	
SOx load	2.18	(t)	
NOx load	4.66	(t)	
Water withdrawal	257.3	(1000t)	
Water quality load	• BOD	0.89 (t)	
	• COD	0.91 (t)	
Water pollution	• pH	Max. 7.6	*Regulation of the law 5.8~8.6
		Min. 7.0	
		Ave. 7.3	
	• BOD	Max. 12.0 (mg/L)	*Regulation of the law 25
		Min. 1.5 (mg/L)	
		Ave. 3.6 (mg/L)	
	• COD	Max. 4.6 (mg/L)	*Regulation of the law 40
		Min. 2.4 (mg/L)	
		Ave. 3.5 (mg/L)	
	• SS	Max. 17.0 (mg/L)	*Regulation of the law 70
		Min. 1.4 (mg/L)	
		Ave. 4.6 (mg/L)	
Waste	274.9	(t)	
Recycled waste	274.9	(t)	
Reused waste	0.00	(t)	
PRTR substances	• Handled	99.3 (kg)	
	• Emitted	0.0 (kg)	
	• Transferred	0.2 (kg)	

Toyo Soflan Co., Ltd.

Location	Miyoshi-shi, Aichi Japan		
Products	Automotive parts		
Number of Employees (Temporary Employees)	149	(19)
Energy consumption	44.4	(1000GJ)	
CO2 emissions	4.63	(1000t-CO2)	
VOC emissions	47.1	(t)	
SOx load	-	(t)	*not yet measured
NOx load	-	(t)	*not yet measured
Water withdrawal	19.7	(1000t)	
Water quality load	• BOD	0.08 (t)	
	• COD	0.13 (t)	
Water pollution	• pH	Max. 8.5 Min. 6.0 Ave. 7.4	*Regulation of the law 5.8~8.6
	• BOD	Max. 22.0 (mg/L) Min. 0.5 (mg/L) Ave. 6.0 (mg/L)	*Regulation of the law 25
	• COD	Max. 21.0 (mg/L) Min. 2.6 (mg/L) Ave. 10.1 (mg/L)	*Regulation of the law 25
	• SS	Max. 24.0 (mg/L) Min. 1.0 (mg/L) Ave. 5.1 (mg/L)	*Regulation of the law 30
Waste	139.0	(t)	
Recycled waste	137.5	(t)	
Reused waste	0.00	(t)	
PRTR substances	• Handled	815.6 (kg)	
	• Emitted	7.4 (kg)	
	• Transferred	0.0 (kg)	

Ayabe Toyo Rubber Co., Ltd.

Location	Ayabe-shi, Kyoto Japan		
Products	Automotive parts		
Number of Employees (Temporary Employees)	31	(17)
Energy consumption	14.9	(1000GJ)	
CO2 emissions	1.62	(1000t-CO2)	
VOC emissions	5.1	(t)	
SOx load	0.06	(t)	
NOx load	0.16	(t)	
Water withdrawal	29.8	(1000t)	
Water quality load	• BOD	0.02 (t)	
	• COD	0.05 (t)	
Water pollution	• pH	Max. 7.60 Min. 6.40 Ave. 7.10	*Regulation of the law 5.8~8.6
	• BOD	Max. 4.80 (mg/L) Min. ND (mg/L) Ave. 2.80 (mg/L)	*Regulation of the law 25 /ND : less than the lower quantitative limit
	• COD	Max. 4.60 (mg/L) Min. ND (mg/L) Ave. 1.60 (mg/L)	*Regulation of the law 120 /ND : less than the lower quantitative limit
	• SS	Max. ND (mg/L) Min. ND (mg/L) Ave. ND (mg/L)	*Regulation of the law 90 /ND : less than the lower quantitative limit
Waste	138.9	(t)	
Recycled waste	138.9	(t)	
Reused waste	0.00	(t)	
PRTR substances	• Handled	4.8 (kg)	
	• Emitted	3.0 (kg)	
	• Transferred	1.7 (kg)	

Orient Machinery Co., Ltd.

Location	Itami-shi, Hyogo Japan* Iwanuma-shi, Miyagi Japan *HQ		
Products	Mechanical equipment, tire mold		
Number of Employees (Temporary Employees)	170	(24)
Energy consumption	6.18	(1000GJ)	
CO2 emissions	0.88	(1000t-CO2)	
VOC emissions	-	(t)	
SOx load	-	(t)	*not yet measured
NOx load	-	(t)	*not yet measured
Water withdrawal	3.00	(1000t)	
Water quality load	• BOD	- (t)	*not yet measured
	• COD	- (t)	*not yet measured
Water pollution	• pH	Max. - Min. - Ave. -	*not yet measured
	• BOD	Max. - (mg/L) Min. - (mg/L) Ave. - (mg/L)	*not yet measured
	• COD	Max. - (mg/L) Min. - (mg/L) Ave. - (mg/L)	*not yet measured
	• SS	Max. - (mg/L) Min. - (mg/L) Ave. - (mg/L)	*not yet measured
Waste	74.1	(t)	
Recycled waste	66.9	(t)	
Reused waste	0.00	(t)	
PRTR substances	• Handled	0.0 (kg)	
	• Emitted	0.0 (kg)	
	• Transferred	0.0 (kg)	

TOYO AUTOMOTIVE PARTS (USA), INC.

Location	Kentucky, U.S.A		
Products	Automotive parts		
Number of Employees (Temporary Employees)	291	(0)
Energy consumption	114.6	(1000GJ)	
CO2 emissions	9.05	(1000t-CO2)	
Water withdrawal	18.3	(t)	
Waste	2,996.3	(t)	

※Including data of TMM (USA). INC. in the same site

TOYO TIRE NORTH AMERICA MANUFACTURING INC.

Location	Georgia, U.S.A.		
Products	Automobile tires		
Number of Employees (Temporary Employees)	1,287	(345)
Energy consumption	1,610.4	(1000GJ)	
CO2 emissions	129.3	(1000t-CO2)	
Water withdrawal	343.8	(t)	
Waste	7,964.2	(t)	

東洋橡塑（広州）有限公司

(TOYO AUTOMOTIVE PARTS (GUANGZHOU) CO., LTD.)

Location	Guangzhou, China
Products	Automotive parts
Number of Employees (Temporary Employees)	361 (0)
Energy consumption	59.5 (1000GJ)
CO2 emissions	7.36 (1000t-CO2)
Water withdrawal	20.1 (t)
Waste	655.3 (t)

通伊欧輪胎張家港有限公司

(TOYO TIRE ZHANGJIAGANG CO.,LTD.)

Location	Jiangsu, China
Products	Automobile tires
Number of Employees (Temporary Employees)	361 (0)
Energy consumption	229.1 (1000GJ)
CO2 emissions	23.1 (1000t-CO2)
Water withdrawal	37.0 (t)
Waste	616.3 (t)

通伊欧輪胎（諸城）有限公司

(TOYO TIRE (ZHUCHENG) CO.,LTD.)

Location	Shandong, China
Products	Automobile tires
Number of Employees (Temporary Employees)	562 (4)
Energy consumption	264.2 (1000GJ)
CO2 emissions	27.7 (1000t-CO2)
Water withdrawal	105.0 (t)
Waste	760.1 (t)

SILVERSTONE BERHAD

Location	Perak, Malaysia
Products	Automobile tires
Number of Employees (Temporary Employees)	1,322 (0)
Energy consumption	477.8 (1000GJ)
CO2 emissions	43.7 (1000t-CO2)
Water withdrawal	233.1 (t)
Waste	1,892.3 (t)

TOYO TYRE MALAYSIA SDN BHD

Location	Perak, Malaysia		
Products	Automobile tires		
Number of Employees (Temporary Employees)	1,181	(0)
Energy consumption	500.8	(1000GJ)	
CO2 emissions	56.1	(1000t-CO2)	
Water withdrawal	128.3	(t)	
Waste	1,440.2	(t)	

TOYO RUBBER CHEMICAL PRODUCTS (THAILAND) LIMITED

Location	Ayutthaya, Thailand		
Products	Automotive parts		
Number of Employees (Temporary Employees)	29	(0)
Energy consumption	2.22	(1000GJ)	
CO2 emissions	0.32	(1000t-CO2)	
Water withdrawal	1.07	(t)	
Waste	1.17	(t)	