

Site Report (FY2021)

Japan:	Toyo Tire Corp.	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.	
US:	TOYO AUTOMOTIVE PARTS (USA), INC. TOYO TIRE NORTH AMERICA MANUFACTURING INC.	
China:	TOYO AUTOMOTIVE PARTS (GUANGZHOU) CO., LTD. TOYO TIRE ZHANGJIAGANG CO., LTD. TOYO TIRE (ZHUCHENG) CO., LTD.	
Malaysia:	SILVERSTONE BERHAD(Production stopped in June 2021) TOYO TYRE MALAYSIA SDN BHD	
Thailand:	TOYO RUBBER CHEMICAL PRODUCTS (THAILAND) LIMITED	

Period:

January - December, 2021 Energy consumption, CO2 emissions, SOx load, NOx load,
Water withdrawal, Water discharge, Water quality load, Water pollution,
Waste, Recycled waste, Reused waste

April - March, 2021 VOC emissions, PRTR substances (Handled, Emitted, Transferred)

*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.

The data on water discharge from the Toyo Tire Corporation Hyogo Manufacturing Complex and on waste from Ayabe Toyo Rubber Co., Ltd. includes the amounts from their respective neighboring facilities of other companies (the amount of water discharge / waste for joint treatment, respectively).

Toyo Tire Corp.

1. Sendai Plant

Location	Iwanuma-shi, Miyagi Japan		
Products	Automobile tires		
Energy consumption		1,833.3	(1000GJ)
CO2 emissions		108.7	(1000t-CO2)
VOC emissions		231.6	(t)
SOx load		0.00	(t)
NOx load		68.2	(t)
Water withdrawal		1,240.0	(1000t)
Water discharge		908.8	(1000t)
Water quality load	• BOD	1.66	(t)
	• COD	6.03	(t)
Water pollution	• pH	Max. 8.00 Min. 7.40 Ave. 7.60	*Regulation of the law 5.8~8.6
	• BOD	Max. 4.50 (mg/L) Min. 0.50 (mg/L) Ave. 1.40 (mg/L)	*Regulation of the law 120
	• COD	Max. 9.20 (mg/L) Min. 3.40 (mg/L) Ave. 5.00 (mg/L)	*Regulation of the law 120
	• SS	Max. 9.00 (mg/L) Min. 1.00 (mg/L) Ave. 4.20 (mg/L)	*Regulation of the law 150
Waste		3,957.8	(t)
Recycled waste		3,957.8	(t)
Reused waste		0.0	(t)
PRTR substances	• Handled	1,258.0	(t)
	• Emitted	9.09	(t)
	• Transferred	20.0	(t)

2. Kuwana Plant

Location	Toin-cho, Inabe-gun, Mie Japan			
Products	Automobile tires, automotive parts			
Energy consumption			1,859.4	(1000GJ)
CO2 emissions			131.2	(1000t-CO2)
VOC emissions			294.0	(t)
SOx load			0.99	(t)
NOx load			79.6	(t)
Water withdrawal			883.1	(1000t)
Water discharge			357.2	(1000t)
Water quality load	• BOD		0.39	(t)
	• COD		0.77	(t)
Water pollution	• pH	Max.	7.70	*Regulation of the ordinance 6.0~8.0
		Min.	7.10	
		Ave.	7.30	
	• BOD	Max.	2.00 (mg/L)	*Regulation of the pollution prevention agreement with local governments 8
		Min.	<1 (mg/L)	
		Ave.	1.40 (mg/L)	
	• COD	Max.	2.00 (mg/L)	*Regulation of the pollution prevention agreement with local governments 8
		Min.	<1 (mg/L)	
		Ave.	1.40 (mg/L)	
	• SS	Max.	3.00 (mg/L)	*Regulation of the pollution prevention agreement with local governments 10
		Min.	<2 (mg/L)	
		Ave.	3.00 (mg/L)	
Waste			6,008.6	(t)
Recycled waste			6,008.6	(t)
Reused waste			0.00	(t)
PRTR substances	• Handled		1,635.2	(t)
	• Emitted		80.2	(t)
	• Transferred		67.9	(t)

3. Hyogo Manufacturing Complex

Location	Inami-cho, Kako-gun, Hyogo Japan			
Products	Automotive parts			
Energy consumption			11.5	(1000GJ)
CO2 emissions			1.05	(1000t-CO2)
VOC emissions			4.25	(t)
SOx load			0.00	(t)
NOx load			0.67	(t)
Water withdrawal			163.1	(1000t)
Water discharge			92.4	(1000t)
Water quality load	• BOD		0.28	(t)
	• COD		0.25	(t)
Water pollution	• pH	Max.	8.30	*Regulation of the law 5.8~8.6
		Min.	6.30	
		Ave.	7.40	
	• BOD	Max.	4.40 (mg/L)	*Regulation of the law 100
		Min.	0.50 (mg/L)	
		Ave.	1.50 (mg/L)	
	• COD	Max.	7.50 (mg/L)	*Regulation of the law 100
		Min.	0.50 (mg/L)	
		Ave.	2.50 (mg/L)	
	• SS	Max.	5.90 (mg/L)	*Regulation of the law 90
		Min.	0.50 (mg/L)	
		Ave.	1.70 (mg/L)	
Waste			84.0	(t)
Recycled waste			84.0	(t)
Reused waste			0.00	(t)
PRTR substances	• Handled		4.63	(t)
	• Emitted		4.25	(t)
	• Transferred		0.00	(t)

4. Tire Technical Center

Location	Itami-shi, Hyogo Japan
Energy consumption	19.8 (1000GJ)
CO2 emissions	2.32 (1000t-CO2)
Water withdrawal	8.08 (1000t)
Waste	583.2 (t)
Recycled waste	583.2 (t)
Reused waste	0.00 (t)

5. Automotive Parts Technical Center

Location	Miyoshi-shi, Aichi Japan
Energy consumption	11.0 (1000GJ)
CO2 emissions	1.38 (1000t-CO2)
Water withdrawal	15.8 (1000t)
Waste	31.3 (t)
Recycled waste	31.3 (t)
Reused waste	0.00 (t)

6. Corporate Technology Center

Location Kawanishi-shi, Hyogo Japan

Energy consumption	15.8 (1000GJ)
CO2 emissions	1.50 (1000t-CO2)
Water withdrawal	5.99 (1000t)
Waste	46.7 (t)
Recycled waste	46.7 (t)
Reused waste	0.00 (t)

7. Headquarters

Location Itami-shi, Hyogo Japan

Energy consumption	4.02 (1000GJ)
CO2 emissions	0.31 (1000t-CO2)
Water withdrawal	2.56 (1000t)
Waste	25.3 (t)
Recycled waste	25.3 (t)
Reused waste	0.00 (t)

Fukushima Rubber Co., Ltd.

Location	Fukushima-shi, Fukushima Japan			
Products	Automobile tires, automotive parts			
Energy consumption			55.5 (1000GJ)	
CO2 emissions			5.37 (1000t-CO2)	
VOC emissions			1.23 (t)	
SOx load			1.68 (t)	
NOx load			5.49 (t)	
Water withdrawal			227.5 (1000t)	
Water discharge			233.1 (1000t)	
Water quality load	· BOD		0.83 (t)	
	· COD		0.82 (t)	
Water pollution	· pH	Max.	7.60	*Regulation of the law 5.8~8.6
		Min.	7.20	
		Ave.	7.40	
	· BOD	Max.	11.0 (mg/L)	*Regulation of the law 25
		Min.	1.20 (mg/L)	
		Ave.	3.70 (mg/L)	
	· COD	Max.	5.50 (mg/L)	*Regulation of the law 40
		Min.	2.10 (mg/L)	
		Ave.	3.60 (mg/L)	
	· SS	Max.	13.0 (mg/L)	*Regulation of the law 70
		Min.	1.70 (mg/L)	
		Ave.	5.00 (mg/L)	
Waste			182.6 (t)	
Recycled waste			182.6 (t)	
Reused waste			0.00 (t)	
PRTR substances	· Handled		82.3 (t)	
	· Emitted		0.00 (t)	
	· Transferred		0.19 (t)	

Toyo Soflan Co., Ltd.

Location	Miyoshi-shi, Aichi Japan		
Products	Automotive parts		
Energy consumption		10.5	(1000GJ)
CO2 emissions		1.17	(1000t-CO2)
VOC emissions		2.53	(t)
SOx load	-	(t)	*not yet measured
NOx load	-	(t)	*not yet measured
Water withdrawal		4.07	(1000t)
Water quality load	· BOD	-	(t)
	· COD	-	(t)
Water pollution	· pH	Max.	*Voluntary measurement
		Min.	
		Ave.	
	· BOD	Max.	(mg/L) *Voluntary measurement
		Min.	(mg/L)
		Ave.	(mg/L)
	· COD	Max.	(mg/L) *Voluntary measurement
		Min.	(mg/L)
		Ave.	(mg/L)
	· SS	Max.	(mg/L) *Voluntary measurement
		Min.	(mg/L)
		Ave.	(mg/L)
Waste		62.4	(t)
Recycled waste		62.4	(t)
Reused waste		0.00	(t)
PRTR substances	· Handled	7.87	(t)
	· Emitted	1.37	(t)
	· Transferred	1.70	(t)

Ayabe Toyo Rubber Co., Ltd.

Location	Ayabe-shi, Kyoto Japan		
Products	Automotive parts		
Energy consumption		12.5	(1000GJ)
CO2 emissions		1.22	(1000t-CO2)
VOC emissions		5.16	(t)
SOx load		(t)	*not yet measured
NOx load		(t)	*not yet measured
Water withdrawal		21.1	(1000t)
Water quality load	· BOD	0.04	(t)
	· COD	0.05	(t)
Water pollution	· pH	Max. 8.20	*Regulation of the law 5.8~8.6
		Min. 6.00	
		Ave. 7.00	
	· BOD	Max. 4.40 (mg/L)	*Regulation of the law 25
		Min. 1.30 (mg/L)	/ND : less than the lower quantitative limit
		Ave. 2.70 (mg/L)	
	· COD	Max. 6.20 (mg/L)	*Regulation of the law 120
		Min. 1.00 (mg/L)	/ND : less than the lower quantitative limit
		Ave. 2.80 (mg/L)	
	· SS	Max. ND (mg/L)	*Regulation of the law 90
		Min. ND (mg/L)	/ND : less than the lower quantitative limit
		Ave. ND (mg/L)	
Waste		115.9	(t)
Recycled waste		115.9	(t)
Reused waste		0.00	(t)
PRTR substances	· Handled	4.29	(kg)
	· Emitted	2.75	(kg)
	· Transferred	1.55	(kg)

Orient Machinery Co., Ltd.

Location	Itami-shi, Hyogo Japan* Iwanuma-shi, Miyagi Japan *HQ		
Products	Mechanical equipment, tire mold		
Energy consumption		5.97	(1000GJ)
CO2 emissions		0.74	(1000t-CO2)
VOC emissions	-		(t)
SOx load	-		(t) *not yet measured
NOx load	-		(t) *not yet measured
Water withdrawal		2.59	(1000t)
Water quality load	· BOD	-	(t) *not yet measured
	· COD	-	(t) *not yet measured
Water pollution	· pH	Max. -	*not yet measured
		Min. -	
		Ave. -	
	· BOD	Max. -	(mg/L) *not yet measured
		Min. -	(mg/L)
		Ave. -	(mg/L)
	· COD	Max. -	(mg/L) *not yet measured
		Min. -	(mg/L)
		Ave. -	(mg/L)
	· SS	Max. -	(mg/L) *not yet measured
		Min. -	(mg/L)
		Ave. -	(mg/L)
Waste		12.39	(t)
Recycled waste		12.39	(t)
Reused waste		0.00	(t)
PRTR substances	· Handled	-	(kg)
	· Emitted	-	(kg)
	· Transferred	-	(kg)

TOYO AUTOMOTIVE PARTS (USA), INC.

Location	Kentucky, U.S.A
Products	Automotive parts

Energy consumption	104.4 (1000GJ)
CO2 emissions	8.3 (1000t-CO2)
Water withdrawal	16.5 (1000t)
Waste	1,434.7 (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

Energy consumption	1,648.9 (1000GJ)
CO2 emissions	136.9 (1000t-CO2)
Water withdrawal	360.2 (1000t)
Water discharge	108.8 (1000t)
Waste	11,516.0 (t)

東洋橡塑（広州）有限公司

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

Location		Guangzhou, China
Products		Automotive parts
Energy consumption		50.7 (1000GJ)
CO2 emissions		6.32 (1000t-CO2)
Water withdrawal		18.3 (1000t)
Water quality load	· BOD	0.71 (t)
	· COD	2.89 (t)
Waste		568.6 (t)

通伊欧輪胎張家港有限公司

(TOYO TIRE ZHANGJIAGANG CO.,LTD.)

Location		Jiangsu, China
Products		Automobile tires
Energy consumption		243.1 (1000GJ)
CO2 emissions		24.1 (1000t-CO2)
SOx load		0.00 (t)
NOx load		0.05 (t)
Water withdrawal		40.1 (1000t)
Water discharge		29.4 (1000t)
Water quality load	· BOD	0.08 (t)
	· COD	0.21 (t)
Waste		575.9 (t)

通伊欧輪胎（諸城）有限公司

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

Location	Shandong, China
Products	Automobile tires

Energy consumption	258.1 (1000GJ)
CO2 emissions	27.6 (1000t-CO2)
Water withdrawal	86.1 (1000t)
Waste	536.3 (t)

SILVERSTONE BERHAD

Location	Perak, Malaysia
Products	Automobile tires

Energy consumption	104.6 (1000GJ)
CO2 emissions	10.7 (1000t-CO2)
Water withdrawal	51.3 (1000t)
Water quality load	38.5 (1000t)
Water pollution	266.3 (t)

TOYO TYRE MALAYSIA SDN BHD

Location Perak, Malaysia

Products Automobile tires

Energy consumption 738.6 (1000GJ)

CO2 emissions 83.0 (1000t-CO2)

Water withdrawal 215.2 (1000t)

Water quality load 64.6 (1000t)

Water pollution 2,599.2 (t)

TOYO RUBBER CHEMICAL PRODUCTS (THAILAND) LIMITED

Location Ayutthaya, Thailand

Products Automotive parts

Energy consumption 1.94 (1000GJ)

CO2 emissions 0.25 (1000t-CO2)

Water withdrawal 0.92 (1000t)

Water quality load 0.73 (1000t)

Water pollution 2.55 (t)