

Site Report (FY2022)

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. (End of production in August 2022)	
	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:	TOYO TYRE MALAYSIA SDN BHD	
Thailand:	TOYO RUBBER CHEMICAL PRODUCTS (THAILAND) LIMITED	

Period:

January - December, 2022 Energy consumption, CO2 emissions, SOx load, NOx load,
Water withdrawal, Water discharge, Water quality load, Water pollution,
Waste, Recycled waste, Reused waste

April - March, 2022 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			2,064.6	(1000GJ)
CO2 emissions			106.4	(1000t-CO2)
VOC emissions			275.1	(t)
SOx load			0.0	(t)
NOx load			63.0	(t)
Water withdrawal			1,246.4	(1000t)
Water discharge			1,093.1	(1000t)
Water quality load	• BOD		1.46	(t)
	• COD		5.53	(t)
Water pollution	• pH	Max.	8.2	*Regulation of the law 5.8~8.6
		Min.	7.1	
		Ave.	7.7	
	• BOD	Max.	1.8 (mg/L)	*Regulation of the law 120
		Min.	0.5 (mg/L)	
		Ave.	1.2 (mg/L)	
	• COD	Max.	5.6 (mg/L)	*Regulation of the law 120
		Min.	3.7 (mg/L)	
		Ave.	4.7 (mg/L)	
	• SS	Max.	8.0 (mg/L)	*Regulation of the law 150
		Min.	1.0 (mg/L)	
		Ave.	5.1 (mg/L)	
Waste			3,852.1	(t)
Recycled waste			3,852.1	(t)
Reused waste			0.0	(t)
PRTR substances	• Handled		1,272.6	(t)
	• Emitted		10.84	(t)
	• Transferred		20.3	(t)

2. Kuwana Plant

Location	Toin-cho, Inabe-gun, Mie Japan			
Products	Automobile tires, automotive parts			
Energy consumption			1,993.5	(1000GJ)
CO2 emissions			123.9	(1000t-CO2)
VOC emissions			261.5	(t)
SOx load			1.04	(t)
NOx load			72.7	(t)
Water withdrawal			867.3	(1000t)
Water discharge			361.5	(1000t)
Water quality load	• BOD		0.46	(t)
	• COD		0.89	(t)
Water pollution	• pH	Max.	7.7	*Regulation of the ordinance 6.0~8.0
		Min.	6.7	
		Ave.	7.5	
	• BOD	Max.	3.0 (mg/L)	*Regulation of the pollution prevention agreement with local governments 8
		Min.	1.0 (mg/L)	
		Ave.	1.5 (mg/L)	
	• COD	Max.	5.0 (mg/L)	*Regulation of the pollution prevention agreement with local governments 8
		Min.	1.0 (mg/L)	
		Ave.	3.0 (mg/L)	
	• SS	Max.	3.0 (mg/L)	*Regulation of the pollution prevention agreement with local governments 10
		Min.	<2 (mg/L)	
		Ave.	3.0 (mg/L)	
Waste			6,064.1	(t)
Recycled waste			6,064.1	(t)
Reused waste			0.0	(t)
PRTR substances	• Handled		1,720.7	(t)
	• Emitted		116.4	(t)
	• Transferred		71.3	(t)

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3. Hyogo Manufacturing Complex

Location	Inami-cho, Kako-gun, Hyogo Japan			
Products	Automotive parts			
Energy consumption			3.38 (1000GJ)	
CO2 emissions			0.20 (1000t-CO2)	
VOC emissions			1.13 (t)	
SOx load			0.00 (t)	
NOx load			0.60 (t)	
Water withdrawal			0.24 (1000t)	
Water discharge			0.24 (1000t)	
Water quality load	• BOD		0.15 (t)	
	• COD		0.19 (t)	
Water pollution	• pH	Max.	8.0	*Regulation of the law 5.8~8.6
		Min.	7.4	
		Ave.	7.7	
	• BOD	Max.	3.2 (mg/L)	*Regulation of the law 100
		Min.	1.2 (mg/L)	
		Ave.	1.9 (mg/L)	
	• COD	Max.	5.8 (mg/L)	*Regulation of the law 100
		Min.	2.0 (mg/L)	
		Ave.	3.7 (mg/L)	
	• SS	Max.	2.7 (mg/L)	*Regulation of the law 90
		Min.	0.5 (mg/L)	
		Ave.	1.6 (mg/L)	
Waste			68.1 (t)	
Recycled waste			68.1 (t)	
Reused waste			0.0 (t)	
PRTR substances	• Handled		0.0 (t)	
	• Emitted		0.0 (t)	
	• Transferred		0.0 (t)	

4. Tire Technical Center

Location	Itami-shi, Hyogo Japan
Energy consumption	22.1 (1000GJ)
CO2 emissions	2.48 (1000t-CO2)
Water withdrawal	11.06 (1000t)
Waste	577.5 (t)
Recycled waste	577.5 (t)
Reused waste	0.0 (t)

5. Automotive Parts Technical Center

Location	Miyoshi-shi, Aichi Japan
Energy consumption	10.3 (1000GJ)
CO2 emissions	1.26 (1000t-CO2)
Water withdrawal	16.9 (1000t)
Waste	29.0 (t)
Recycled waste	29.0 (t)
Reused waste	0.0 (t)

6. Corporate Technology Center

Location Kawanishi-shi, Hyogo Japan

Energy consumption	16.7 (1000GJ)
CO2 emissions	1.48 (1000t-CO2)
Water withdrawal	6.51 (1000t)
Waste	55.8 (t)
Recycled waste	55.8 (t)
Reused waste	0.0 (t)

7. Headquarters

Location Itami-shi, Hyogo Japan

Energy consumption	5.92 (1000GJ)
CO2 emissions	-2.14 (1000t-CO2) ※Holds FIT non-fossil certificate
Water withdrawal	4.59 (1000t)
Waste	28.4 (t)
Recycled waste	28.4 (t)
Reused waste	0.0 (t)

Fukushima Rubber Co., Ltd.

Location	Fukushima-shi, Fukushima Japan			
Products	Automobile tires, automotive parts			
Energy consumption			61.0	(1000GJ)
CO2 emissions			5.72	(1000t-CO2)
VOC emissions			1.04	(t)
SOx load			1.04	(t)
NOx load			5.64	(t)
Water withdrawal			299.0	(1000t)
Water discharge			285.5	(1000t)
Water quality load	• BOD		0.95	(t)
	• COD		1.16	(t)
Water pollution	• pH	Max.	7.8	*Regulation of the law 5.8~8.6
		Min.	7.3	
		Ave.	7.5	
	• BOD	Max.	18.0 (mg/L)	*Regulation of the law 25
		Min.	1.2 (mg/L)	
		Ave.	3.2 (mg/L)	
	• COD	Max.	18.0 (mg/L)	*Regulation of the law 40
		Min.	1.9 (mg/L)	
		Ave.	3.9 (mg/L)	
	• SS	Max.	24.0 (mg/L)	*Regulation of the law 70
		Min.	1.0 (mg/L)	
		Ave.	5.8 (mg/L)	
Waste			187.9	(t)
Recycled waste			187.9	(t)
Reused waste			0.0	(t)
PRTR substances	• Handled		100.1	(t)
	• Emitted		0.0	(t)
	• Transferred		0.25	(t)

Toyo Soflan Co., Ltd.

Location	Miyoshi-shi, Aichi Japan		
Products	Automotive parts		
Energy consumption		2.29	(1000GJ)
CO2 emissions		0.28	(1000t-CO2)
VOC emissions		0.0	(t)
SOx load	-	(t)	*not yet measured
NOx load	-	(t)	*not yet measured
Water withdrawal		1.82	(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		22.7	(t)
Recycled waste		22.7	(t)
Reused waste		0.0	(t)
PRTR substances	• Handled	0.0	(t)
	• Emitted	0.0	(t)
	• Transferred	0.0	(t)

Ayabe Toyo Rubber Co., Ltd.

Location	Ayabe-shi, Kyoto Japan		
Products	Automotive parts		
Energy consumption	9.98 (1000GJ)		
CO2 emissions	0.99 (1000t-CO2)		
VOC emissions	4.61 (t)		
SOx load	(t)	*not yet measured	
NOx load	(t)	*not yet measured	
Water withdrawal	15.4 (1000t)		
Water quality load	• BOD	0.02 (t)	
	• COD	0.05 (t)	
Water pollution	• pH	Max. 7.9	*Regulation of the law 5.8~8.6
		Min. 6.5	
		Ave. 7.1	
	• BOD	Max. 6.2 (mg/L)	*Regulation of the law 25
		Min. 0.1 (mg/L)	/ND : less than the lower quantitative limit
		Ave. 1.7 (mg/L)	
	• COD	Max. 7.0 (mg/L)	*Regulation of the law 120
		Min. 0.8 (mg/L)	/ND : less than the lower quantitative limit
		Ave. 3.1 (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	99.0 (t)		
Recycled waste	99.0 (t)		
Reused waste	0.0 (t)		
PRTR substances	• Handled	3.73 (kg)	
	• Emitted	2.39 (kg)	
	• Transferred	1.34 (kg)	

Orient Machinery Co., Ltd.

Location	Itami-shi, Hyogo Japan* Iwanuma-shi, Miyagi Japan *HQ		
Products	Mechanical equipment, tire mold		
Energy consumption		6.49	(1000GJ)
CO2 emissions		0.77	(1000t-CO2)
VOC emissions	-	(t)	
SOx load	-	(t)	*not yet measured
NOx load	-	(t)	*not yet measured
Water withdrawal		2.45	(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		40.02	(t)
Recycled waste		40.02	(t)
Reused waste		0.0	(t)
PRTR substances	• Handled	-	(kg)
	• Emitted	-	(kg)
	• Transferred	-	(kg)

TOYO AUTOMOTIVE PARTS (USA), INC.

Location	Kentucky, U.S.A
Products	Automotive parts
Energy consumption	92.8 (1000GJ)
CO2 emissions	5.9 (1000t-CO2)
Water withdrawal	15.1 (1000t)
Waste	1,126.6 (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	1,733.1 (1000GJ)
CO2 emissions	129.3 (1000t-CO2)
Water withdrawal	327.8 (1000t)
Water discharge	86.6 (1000t)
Waste	10,790.0 (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	55.1 (1000GJ)
CO2 emissions	6.50 (1000t-CO2)
Water withdrawal	15.9 (1000t)
Water quality load	• BOD 0.14 (t)
	• COD 0.60 (t)
Waste	663.9 (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	234.9 (1000GJ)
CO2 emissions	22.9 (1000t-CO2)
SOx load	0.0 (t)
NOx load	0.13 (t)
Water withdrawal	36.8 (1000t)
Water discharge	44.4 (1000t)
Water quality load	• BOD 0.18 (t)
	• COD 0.77 (t)
Waste	538.8 (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 261.8 (1000GJ)

CO2 emissions 27.7 (1000t-CO2)

Water withdrawal 70.8 (1000t)

Waste 574.2 (t)

TOYO TYRE MALAYSIA SDN BHD

Location Perak, Malaysia

Products Automobile tires

Energy consumption 791.2 (1000GJ)

CO2 emissions 84.5 (1000t-CO2)

Water withdrawal 246.6 (1000t)

Water quality load 74.0 (1000t)

Water pollution 2,255.5 (t)

TOYO RUBBER CHEMICAL PRODUCTS (THAILAND) LIMITED

Location Ayutthaya, Thailand
Products Automotive parts

Energy consumption 2.22 (1000GJ)
CO2 emissions 0.27 (1000t-CO2)

Water withdrawal 0.82 (1000t)
Water quality load 0.66 (1000t)

Water pollution 1.49 (t)