Site Report (FY2020)

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	
	TOYO TYRE MALAYSIA SDN BHD	
Thailand:	TOYO RUBBER CHEMICAL PRODUCTS (THAILAND) LIMITED	

Period:

January - December, 2020	Energy consumption, CO2 emissions, SOx load, NOx load, Water withdrawal, Water discharge, Water quality load, Water pollution, Waste, Recycled waste, Reused waste
April - March, 2020	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			1,756.4	(1000GJ)		
CO2 emissions			104.4	(1000t-CO2)		
VOC emissions			248.8	(t)		
SOx load			0.00	(t)		
NOx load			62.7	(t)		
Water withdrawal			1,165.7	(1000t)		
Water discharge			839.9	(1000t)		
Water quality load	・BOD		2.11	(t)		
	・COD		5.14	(t)		
Water pollution	・pH	Max.	7.70		*Regulation of the law	5.8～8.6
		Min.	7.20			
		Ave.	7.50			
	・BOD	Max.	3.00	(mg/L)	*Regulation of the law	120
		Min.	0.60	(mg/L)		
		Ave.	1.85	(mg/L)		
	・COD	Max.	5.90	(mg/L)	*Regulation of the law	120
		Min.	3.20	(mg/L)		
		Ave.	4.57	(mg/L)		
	・SS	Max.	12.0	(mg/L)	*Regulation of the law	150
		Min.	5.00	(mg/L)		
		Ave.	6.50	(mg/L)		
Waste			3,291.1	(t)		
Recycled waste			3,291.1	(t)		
Reused waste			0.0	(t)		
PRTR substances	・Handled		1,091.4	(kg)		
	・Emitted		9.65	(kg)		
	・Transferred		17.2	(kg)		

2. Kuwana Plant

Location	Toin-cho, Inabe-gun, Mie Japan
Products	Automobile tires, automotive parts

Energy consumption			1,668.8	(1000GJ)	
CO2 emissions			116.5	(1000t-CO2)	
VOC emissions			289.7	(t)	
SOx load			0.75	(t)	
NOx load			74.7	(t)	
Water withdrawal			889.4	(1000t)	
Water discharge			354.0	(1000t)	
Water quality load	・BOD		0.33	(t)	
	・COD		0.81	(t)	
Water pollution	・pH	Max.	7.70		*Regulation of the ordinance 6.0～8.0
		Min.	7.10		
		Ave.	7.40		
	・BOD	Max.	2.00	(mg/L)	*Regulation of the pollution prevention
		Min.	<1	(mg/L)	agreement with local governments 8
		Ave.	1.20	(mg/L)	
	・COD	Max.	4.00	(mg/L)	*Regulation of the pollution prevention
		Min.	2.00	(mg/L)	agreement with local governments 8
		Ave.	2.80	(mg/L)	
	・SS	Max.	<2	(mg/L)	*Regulation of the pollution prevention
		Min.	<2	(mg/L)	agreement with local governments 10
		Ave.	<2	(mg/L)	
Waste			5,186.7	(t)	
Recycled waste			5,186.7	(t)	
Reused waste			0.00	(t)	
PRTR substances	・Handled		1,423.4	(kg)	
	・Emitted		93.5	(kg)	
	・Transferred		59.2	(kg)	

3. Hyogo Manufacturing Complex

Location			Inami-cho, Kako-gun, Hyogo Japan			
Products			Automotive parts			
Energy consumption			32.8	(1000GJ)		
CO2 emissions			2.54	(1000t-CO2)		
VOC emissions			6.49	(t)		
SOx load			0.00	(t)		
NOx load			0.71	(t)		
Water withdrawal			179.6	(1000t)		
Water discharge			104.4	(1000t)		
Water quality load	・BOD		0.20	(t)		
	・COD		0.30	(t)		
Water pollution	・pH	Max.	8.40		*Regulation of the law	5.8～8.6
		Min.	7.10			
		Ave.	7.90			
	・BOD	Max.	6.20	(mg/L)	*Regulation of the law	100
		Min.	0.80	(mg/L)		
		Ave.	3.40	(mg/L)		
	・COD	Max.	6.30	(mg/L)	*Regulation of the law	100
		Min.	1.00	(mg/L)		
		Ave.	4.10	(mg/L)		
	・SS	Max.	3.90	(mg/L)	*Regulation of the law	90
		Min.	0.60	(mg/L)		
		Ave.	2.70	(mg/L)		
Waste			121.2	(t)		
Recycled waste			121.2	(t)		
Reused waste			0.00	(t)		
PRTR substances	・Handled		9.57	(kg)		
	・Emitted		6.50	(kg)		
	・Transferred		0.00	(kg)		

4. Tire Technical Center

Location	Itami-shi, Hyogo Japan	
Energy consumption	18.7	(1000GJ)
CO2 emissions	2.26	(1000t-CO2)
Water withdrawal	7.78	(1000t)
Waste	490.1	(t)
Recycled waste	490.1	(t)
Reused waste	0.00	(t)

5. Automotive Parts Technical Center

Location	Miyoshi-shi, Aichi Japan	
Energy consumption	11.0	(1000GJ)
CO2 emissions	1.44	(1000t-CO2)
Water withdrawal	13.7	(1000t)
Waste	39.0	(t)
Recycled waste	39.0	(t)
Reused waste	0.00	(t)

6. Corporate Technology Center

Location	Kawanishi-shi, Hyogo Japan
Energy consumption	16.0 (1000GJ)
CO2 emissions	1.57 (1000t-CO2)
Water withdrawal	7.04 (1000t)
Waste	46.7 (t)
Recycled waste	46.7 (t)
Reused waste	0.00 (t)

7. Headquarters

Location	Itami-shi, Hyogo Japan
Energy consumption	5.13 (1000GJ)
CO2 emissions	0.41 (1000t-CO2)
Water withdrawal	4.49 (1000t)
Waste	79.8 (t)
Recycled waste	79.8 (t)
Reused waste	0.00 (t)

Fukushima Rubber Co., Ltd.

Location	Fukushima-shi, Fukushima Japan
Products	Automobile tires, automotive parts

Energy consumption			53.3	(1000GJ)		
CO2 emissions			5.22	(1000t-CO2)		
VOC emissions			1.27	(t)		
SOx load			1.41	(t)		
NOx load			3.77	(t)		
Water withdrawal			279.8	(1000t)		
Water discharge			284.6	(1000t)		
Water quality load	・BOD		0.91	(t)		
	・COD		0.91	(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.	1.00	(mg/L)		
		Ave.	3.60	(mg/L)		
	・COD	Max.	4.90	(mg/L)	*Regulation of the law	40
		Min.	2.00	(mg/L)		
		Ave.	3.40	(mg/L)		
	・SS	Max.	5.40	(mg/L)	*Regulation of the law	70
		Min.	1.20	(mg/L)		
		Ave.	3.00	(mg/L)		
Waste			193.2	(t)		
Recycled waste			193.2	(t)		
Reused waste			0.00	(t)		
PRTR substances	・Handled		59.0	(kg)		
	・Emitted		0.00	(kg)		
	・Transferred		0.13	(kg)		

Toyo Soflan Co., Ltd.

Location			Miyoshi-shi, Aichi Japan		
Products			Automotive parts		
Energy consumption			10.2	(1000GJ)	
CO2 emissions			1.16	(1000t-CO2)	
VOC emissions			9.12	(t)	
SOx load		-		(t)	*not yet measured
NOx load		-		(t)	*not yet measured
Water withdrawal			4.39	(1000t)	
Water quality load	・BOD	-		(t)	
	・COD	-		(t)	
Water pollution	・pH	Max.	8.50		*Voluntary measurement
		Min.	7.20		
		Ave.	7.60		
	・BOD	Max.	18.0	(mg/L)	*Voluntary measurement
		Min.	0.80	(mg/L)	
		Ave.	5.20	(mg/L)	
	・COD	Max.	21.0	(mg/L)	*Voluntary measurement
		Min.	1.90	(mg/L)	
		Ave.	8.9	(mg/L)	
	・SS	Max.	14.0	(mg/L)	*Voluntary measurement
		Min.	<1	(mg/L)	
		Ave.	12.30	(mg/L)	
Waste			23.3	(t)	
Recycled waste			23.3	(t)	
Reused waste			0.00	(t)	
PRTR substances	・Handled		5.32	(kg)	
	・Emitted		5.12	(kg)	
	・Transferred		0.02	(kg)	

Ayabe Toyo Rubber Co., Ltd.

Location			Ayabe-shi, Kyoto Japan		
Products			Automotive parts		
Energy consumption			12.6	(1000GJ)	
CO2 emissions			1.24	(1000t-CO2)	
VOC emissions			4.61	(t)	
SOx load				(t)	*not yet measured
NOx load				(t)	*not yet measured
Water withdrawal			24.1	(1000t)	
Water quality load	・BOD			(t)	*not yet measured
	・COD			(t)	*not yet measured
Water pollution	・pH	Max.	8.10		*Regulation of the law 5.8～8.6
		Min.	6.80		
		Ave.	7.40		
	・BOD	Max.	5.60	(mg/L)	*Regulation of the law 25
		Min.	ND	(mg/L)	/ND : less than the lower quantitative limit
		Ave.	1.50	(mg/L)	
	・COD	Max.	6.40	(mg/L)	*Regulation of the law 120
		Min.	ND	(mg/L)	/ND : less than the lower quantitative limit
		Ave.	2.30	(mg/L)	
	・SS	Max.	1.50	(mg/L)	*Regulation of the law 90
		Min.	ND	(mg/L)	/ND : less than the lower quantitative limit
		Ave.	0.20	(mg/L)	
Waste			100.0	(t)	
Recycled waste			100.0	(t)	
Reused waste			0.00	(t)	
PRTR substances	・Handled		3.67	(kg)	
	・Emitted		2.35	(kg)	
	・Transferred		1.32	(kg)	

Orient Machinery Co., Ltd.

Location			Itami-shi, Hyogo Japan* Iwanuma-shi, Miyagi Japan *HQ		
Products			Mechanical equipment, tire mold		
Energy consumption			5.77	(1000GJ)	
CO2 emissions			0.75	(1000t-CO2)	
VOC emissions		-		(t)	
SOx load		-		(t)	*not yet measured
NOx load		-		(t)	*not yet measured
Water withdrawal			2.58	(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			8.63	(t)	
Recycled waste			8.63	(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	14.7	(1000GJ)
CO2 emissions	10.4	(1000t-CO2)
Water withdrawal	16.6	(1000t)
Waste	2,213.1	(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	221.4	(1000GJ)
CO2 emissions	128.3	(1000t-CO2)
Water withdrawal	323.6	(1000t)
Water discharge	86.9	(1000t)
Waste	9,313.3	(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		24.4	(1000GJ)
CO2 emissions		6.04	(1000t-CO2)
Water withdrawal		15.5	(1000t)
Water quality load	・BOD	0.35	(t)
	・COD	1.65	(t)
Waste		467.6	(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		162.7	(1000GJ)
CO2 emissions		22.3	(1000t-CO2)
SOx load		0.00	(t)
NOx load		0.06	(t)
Water withdrawal		32.6	(1000t)
Water discharge		15.9	(1000t)
Water quality load	・BOD	0.26	(t)
	・COD	1.38	(t)
Waste		530.8	(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	164.8	(1000GJ)
CO2 emissions	24.9	(1000t-CO2)
Water withdrawal	76.1	(1000t)
Waste	572.2	(t)

SILVERSTONE BERHAD

Location	Perak, Malaysia
Products	Automobile tires

Energy consumption	37.2	(1000GJ)
CO2 emissions	33.3	(1000t-CO2)
Water withdrawal	152.7	(1000t)
Water quality load	114.5	(1000t)
Water pollution	880.1	(t)

TOYO TYRE MALAYSIA SDN BHD

Location	Perak, Malaysia	
Products	Automobile tires	
Energy consumption	92.3	(1000GJ)
CO2 emissions	72.3	(1000t-CO2)
Water withdrawal	202.8	(1000t)
Water quality load	48.6	(1000t)
Water pollution	2,172.9	(t)

TOYO RUBBER CHEMICAL PRODUCTS (THAILAND) LIMITED

Location	Ayutthaya, Thailand	
Products	Automotive parts	
Energy consumption	0.44	(1000GJ)
CO2 emissions	0.21	(1000t-CO2)
Water withdrawal	1.11	(1000t)
Water quality load	0.89	(1000t)
Water pollution	1.44	(t)