

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

### Site Report (FY2017)

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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.	
	F.C.C Co., Ltd.	
	Orient Machinery Co., Ltd.	
Oversea:	TOYO AUTOMOTIVE PARTS (USA), INC.	
	TOYO TIRE NORTH AMERICA MANUFACTURING INC.	
	TOYO TYRE AND RUBBER AUSTRALIA LTD.	
	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, 2017	Energy consumption, CO2 emissions, SOx load, NOx load, Water withdrawal, Water discharge, Water quality load, Water pollution, Waste, Recycled waste, Reused waste
April - March, 2017	VOC emissions, PRTR substances (Handled, Emitted, Transferred)

\*Number of employees: as of the end of December, 2017

\*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.

**TOYO TIRE & RUBBER CO., LTD.**

Number of Employees 3,186  
(Temporary Employees) ( 615 )

**1. Sendai Plant**

Location Iwanuma-shi, Miyagi Japan  
Products Automobile tires

Energy consumption 2,063.32 (1000GJ)  
CO2 emissions 189.05 (1000t-CO2)

VOC emissions 264 (t/year)

SOx load 15.02 (t/month)

NOx load 268.87 (t/month)

Water withdrawal 1,424.64 (1000t)

Water discharge 904.99 (1000t)

Water quality load • BOD 1.99 (t/month)  
• COD 6.20 (t/month)

Water pollution • pH Max. 8.2 \*Regulation of the law 5.8~8.6  
Min. 7.3  
Ave. 7.8  
• BOD Max. 3.4 (mg/L) \*Regulation of the law 120  
Min. 0.6 (mg/L)  
Ave. 1.5 (mg/L)  
• COD Max. 5.4 (mg/L) \*Regulation of the law 120  
Min. 3.1 (mg/L)  
Ave. 4.5 (mg/L)  
• SS Max. 8.0 (mg/L) \*Regulation of the law 150  
Min. 1.0 (mg/L)  
Ave. 3.8 (mg/L)

Waste 11,439.08 (t)

Recycled waste 11,439.08 (t)

Reused waste 904.17 (t)

PRTR substances • Handled 1,223,889 (kg)  
• Emitted 9,034 (kg)  
• Transferred 18,496 (kg)

## 2. Kuwana Plant

Location	Toin-cho, Inabe-gun, Mie Japan				
Products	Automobile tires, automotive parts				
Energy consumption			1,948.07	(1000GJ)	
CO2 emissions			132.25	(1000t-CO2)	
VOC emissions			381	(t/year)	
SOx load			1.28	(t/month)	
NOx load			74.10	(t/month)	
Water withdrawal			955.25	(1000t)	
Water discharge			309.91	(1000t)	
Water quality load	• BOD		0.86	(t/month)	
	• COD		2.24	(t/month)	
Water pollution	• pH	Max.	7.8		*Regulation of the ordinance 6.0～8.0
		Min.	7.3		
		Ave.	7.6		
	• BOD	Max.	4.0	(mg/L)	*Regulation of the pollution prevention agreement with local governments 8
		Min.	1.0	(mg/L)	
		Ave.	2.8	(mg/L)	
	• COD	Max.	6.0	(mg/L)	*Regulation of the pollution prevention agreement with local governments 8
		Min.	1.0	(mg/L)	
		Ave.	4.0	(mg/L)	
	• SS	Max.	6.0	(mg/L)	*Regulation of the pollution prevention agreement with local governments 10
		Min.	<2	(mg/L)	
		Ave.	4.0	(mg/L)	
Waste			5,249.37	(t)	
Recycled waste			5,249.37	(t)	
Reused waste			0.0	(t)	
PRTR substances	• Handled		1,662,678	(kg)	
	• Emitted		141,547	(kg)	
	• Transferred		58,029	(kg)	

3. Hyogo Manufacturing Complex

Location	Inami-cho, Kako-gun, Hyogo Japan				
Products	Automotive parts				
Energy consumption			122.16	(1000GJ)	
CO2 emissions			9.76	(1000t-CO2)	
VOC emissions			32.24	(t/year)	
NOx load			0.52	(t/month)	
Water withdrawal			241.67	(1000t)	
Water discharge			111.92	(1000t)	
Water quality load	• BOD		0.22	(t/month)	
	• COD		0.28	(t/month)	
Water pollution	• pH	Max.	8.4		*Regulation of the law 5.8~8.6
		Min.	7.5		
		Ave.	7.9		
	• BOD	Max.	3.0	(mg/L)	*Regulation of the law 100
		Min.	1.5	(mg/L)	
		Ave.	2.1	(mg/L)	
	• COD	Max.	5.0	(mg/L)	*Regulation of the law 100
		Min.	2.7	(mg/L)	
		Ave.	3.7	(mg/L)	
	• SS	Max.	2.5	(mg/L)	*Regulation of the law 90
		Min.	0.9	(mg/L)	
		Ave.	1.6	(mg/L)	
Waste			935.02	(t)	
Recycled waste			934.53	(t)	
Reused waste			0.0	(t)	
PRTR substances	• Handled			42,484	(kg)
	• Emitted			29,360	(kg)
	• Transferred			4,000	(kg)

4. Tire Technical Center

Location	Itami-shi, Hyogo Japan	
Energy consumption	17.21	(1000GJ)
CO2 emissions	2.15	(1000t-CO2)
Water withdrawal	7.96	(1000t)
Waste	485.66	(t)
Recycled waste	485.66	(t)

5. Automotive Parts Technical Center

Location	Miyoshi-shi, Aichi Japan	
Energy consumption	13.66	(1000GJ)
CO2 emissions	1.94	(1000t-CO2)
Water withdrawal	5.01	(1000t)
Waste	60.91	(t)
Recycled waste	60.91	(t)

6. Corporate Technology Center

Location Kawanishi-shi, Hyogo Japan

Energy consumption	17.44	(1000GJ)
CO2 emissions	1.74	(1000t-CO2)
Water withdrawal	10.39	(1000t)
Waste	81.22	(t)
Recycled waste	81.22	(t)

7. Headquarters

Location Itami-shi, Hyogo Japan

Energy consumption	5.61	(1000GJ)
CO2 emissions	0.47	(1000t-CO2)
Water withdrawal	4.84	(1000t)
Waste	19.31	(t)
Recycled waste	19.31	(t)

## Fukushima Rubber Co., Ltd.

Location	Fukushima-shi, Fukushima Japan				
Products	Automobile tires, automotive parts				
Number of Employees (Temporary Employees)	142	(	26	)	
Energy consumption	119.59	(1000GJ)			
CO2 emissions	11.31	(1000t-CO2)			
VOC emissions	52	(t/year)			
SOx load	2.89	(t/month)			
NOx load	5.53	(t/month)			
Water withdrawal	389.27	(1000t)			
Water pollution	• pH	Max.	7.4	*Regulation of the law	5.8~8.6
		Min.	7.1		
		Ave.	7.3		
	• BOD	Max.	5.2 (mg/L)	*Regulation of the law	25
		Min.	1.3 (mg/L)		
		Ave.	3.2 (mg/L)		
	• COD	Max.	4.7 (mg/L)	*Regulation of the law	40
		Min.	2.0 (mg/L)		
		Ave.	3.0 (mg/L)		
	• SS	Max.	6.9 (mg/L)	*Regulation of the law	70
		Min.	1.0 (mg/L)		
		Ave.	2.8 (mg/L)		
Waste			357.52	(t)	
Recycled waste			357.52	(t)	
Reused waste			0.0	(t)	
PRTR substances	• Handled			115,457	(kg)
	• Emitted			37,242	(kg)
	• Transferred			2,136	(kg)

## Toyo Soflan Co., Ltd.

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Location		Miyoshi-shi, Aichi Japan			
Products		Automotive parts			
Number of Employees (Temporary Employees)		134		( 19 )	
Energy consumption		54.09 (1000GJ)			
CO2 emissions		5.34 (1000t-CO2)			
VOC emissions		63 (t/year)			
Water withdrawal		30.89 (1000t)			
Water pollution	・ pH	Max.	8.6	*Regulation of the law	5.8～8.6
		Min.	7.0		
		Ave.	7.6		
	・ BOD	Max.	24.0 (mg/L)	*Regulation of the law	25
		Min.	0.7 (mg/L)		
		Ave.	6.1 (mg/L)		
	・ COD	Max.	24.0 (mg/L)	*Regulation of the law	25
		Min.	2.6 (mg/L)		
		Ave.	8.9 (mg/L)		
	・ SS	Max.	20.0 (mg/L)	*Regulation of the law	30
		Min.	1.0 (mg/L)		
		Ave.	4.0 (mg/L)		
Waste		161.64 (t)			
Recycled waste		161.64 (t)			
Reused waste		0.0 (t)			
PRTR substances	・ Handled	1,302,801 (kg)			
	・ Emitted	8,562 (kg)			
	・ Transferred	0 (kg)			



## Ayabe Toyo Rubber Co., Ltd.

Location		Ayabe-shi, Kyoto Japan				
Products		Automotive parts				
Number of Employees (Temporary Employees)		27		( 20 )		
Energy consumption		18.39		(1000GJ)		
CO2 emissions		2.10		(1000t-CO2)		
VOC emissions		2		(t/year)		
SOx load		0.06		(t/month)		
NOx load		0.16		(t/month)		
Water withdrawal		22.72		(1000t)		
Water pollution	・ pH	Max.	7.7	*Regulation of the law 5.8～8.6		
		Min.	6.7			
		Ave.	7.1			
	・ BOD	Max.	4.0	(mg/L)	*Regulation of the law 25	
		Min. ND		(mg/L)	/ND : less than the lower quantitative limit	
		Ave.	0.6	(mg/L)		
	・ COD	Max.	4.0	(mg/L)	*Regulation of the law 120	
		Min. ND		(mg/L)	/ND : less than the lower quantitative limit	
		Ave.	1.2	(mg/L)		
	・ SS	Max.	2.0	(mg/L)	*Regulation of the law 90	
		Min. ND		(mg/L)	/ND : less than the lower quantitative limit	
		Ave.	0.2	(mg/L)		
Waste		212.94		(t)		
Recycled waste		212.94		(t)		
Reused waste		0.0		(t)		
PRTR substances	・ Handled	6,071		(kg)		
	・ Emitted	3,092		(kg)		
	・ Transferred	2,979		(kg)		

**F.C.C Co., Ltd.**

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Location	Fukushima-shi, Fukushima Japan		
Products	Automotive parts		
Number of Employees (Temporary Employees)	50	(	3 )
Energy consumption	10.64	(1000GJ)	
CO2 emissions	1.35	(1000t-CO2)	
VOC emissions	19	(t/year)	
Water withdrawal	1.56	(1000t)	
Waste	73.10	(t)	
Recycled waste	73.10	(t)	
Reused waste	0.0	(t)	
PRTR substances	• Handled	511,010	(kg)
	• Emitted	1	(kg)
	• Transferred	0	(kg)

## **Orient Machinery Co., Ltd.**

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Location	Itami-shi, Hyogo Japan* Iwanuma-shi, Miyagi Japan *HQ		
Products	Mechanical equipment, tire mold		
Number of Employees (Temporary Employees)	173	(	30 )
Energy consumption	6.75	(1000GJ)	
CO2 emissions	0.96	(1000t-CO2)	
Water withdrawal	2.96	(1000t)	
Waste	87.23	(t)	
Recycled waste	81.88	(t)	
Reused waste	0.0	(t)	

## TOYO AUTOMOTIVE PARTS (USA), INC.

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Location	Kentucky, U.S.A
Products	Automotive parts
Number of Employees (Temporary Employees)	290 ( 44 )
Energy consumption	114.75 (1000GJ)
CO2 emissions	9.61 (1000t-CO2)
Water withdrawal	16,466.49 (t)
Waste	1,880.92 (t)

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

## TOYO TIRE NORTH AMERICA MANUFACTURING INC.

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Location	Georgia, U.S.A.
Products	Automobile tires
Number of Employees (Temporary Employees)	1,301 ( 0 )
Energy consumption	1,682.01 (1000GJ)
CO2 emissions	137.26 (1000t-CO2)
Water withdrawal	345,372.33 (t)
Waste	7,838.56 (t)

## TOYO TYRE AND RUBBER AUSTRALIA LTD.

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Location	New South Wales, Australia
Products	Automobile tires
Number of Employees (Temporary Employees)	121 ( 0 )
Energy consumption	27.02 (1000GJ)
CO2 emissions	4.90 (1000t-CO2)
Water withdrawal	7,736.36 (t)
Waste	472.0 (t)

## 東洋橡塑（広州）有限公司

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

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Location	Guangzhou, China
Products	Automotive parts
Number of Employees (Temporary Employees)	371 ( 0 )
Energy consumption	70.73 (1000GJ)
CO2 emissions	8.02 (1000t-CO2)
Water withdrawal	19,632.0 (t)
Waste	687.43 (t)

通伊欧輪胎張家港有限公司  
(TOYO TIRE ZHANGJIAGANG CO.,LTD.)

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Location	Jiangsu, China
Products	Automobile tires
Number of Employees (Temporary Employees)	360 ( 0 )
Energy consumption	232.21 (1000GJ)
CO2 emissions	24.12 (1000t-CO2)
Water withdrawal	36,819.0 (t)
Waste	610.77 (t)

通伊欧輪胎（諸城）有限公司  
(TOYO TIRE (ZHUCHENG) CO.,LTD.)

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Location	Shandong, China
Products	Automobile tires
Number of Employees (Temporary Employees)	549 ( 3 )
Energy consumption	231.15 (1000GJ)
CO2 emissions	24.03 (1000t-CO2)
Water withdrawal	101,926.0 (t)
Waste	848.57 (t)

## SILVERSTONE BERHAD

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Location	Perak, Malaysia
Products	Automobile tires
Number of Employees (Temporary Employees)	1,604 ( 0 )
Energy consumption	525.09 (1000GJ)
CO2 emissions	49.92 (1000t-CO2)
Water withdrawal	220,178.0 (t)
Waste	2,312.14 (t)

## TOYO TYRE MALAYSIA SDN BHD

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Location	Perak, Malaysia
Products	Automobile tires
Number of Employees (Temporary Employees)	1,118 ( 0 )
Energy consumption	533.55 (1000GJ)
CO2 emissions	61.37 (1000t-CO2)
Water withdrawal	125,639.0 (t)
Waste	2,023.64 (t)

TOYO RUBBER CHEMICAL PRODUCTS (THAILAND) LIMITED

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Location	Ayutthaya, Thailand		
Products	Automotive parts		
Number of Employees (Temporary Employees)	33	(	0 )
Energy consumption	5.55	(1000GJ)	
CO2 emissions	0.79	(1000t-CO2)	
Water withdrawal	1,822.0	(t)	
Waste	26.84	(t)	