

Environmental

Standard		Topics of data disclosure	Performance							Note(s) /Omission(s)
SDGs	Disclosure		Unit	2017	2018	2019	2020	2021	2022	
Sustainability resources										
Material Management										
Goal 12	กลุ่มธุรกิจผลิตยางมะตอย									
	Disclosure 301-1	All materials used	Tons	NA	NA	NA	517,394	509,619	411,331.75	Note (5)
		Non-renewable materials	Tons	•	•	•	616,734	509,107	410,886.25	Note (5)
		Renewable materials	Tons	NA	NA	NA	NA	NA	NA	
	Disclosure301-2	Recycled input materials used	Tons	NA	NA	NA	660	712	445.5	Note (5)
		The rate of use of materials that can be reused or recycled	%	NA	NA	NA	0.13	0.14	0.11	Note (5)
	Disclosure301-3	Reclaimed products and their packaging materials	Tons	NA	NA	NA	NA	NA	NA	
The rate of materials products and their packaging materials		%	NA	NA	NA	NA	NA	NA		
Energy										
Energy Management										
Goal 7	Disclosure 302	Policy and guidelines on environment management: Energy	Yes/No	•	•	•	•	•	•	
		Principle, standard or practice guidelines on environment management that the Group implements and refers to such as ISO 50001 , LEED	Yes/No	•	•	•	•	•	•	
		Plan to reduce electricity and/or fuel consumption	Yes/No	•	•	•	•	•	•	
		Target on reducing electricity and/or fuel consumption	Yes/No	•	•	•	•	•	•	
Asphalt Business (Thailand)										
	Disclosure 302-1	Energy consumption within the organization	Gigajoule	270,880	251,387	210,975	215,138	190,249	162,818.40	Note (2)
	Disclosure 302-1	Non-renewable fuel sources	Gigajoule	NA	224,443	185,565	186,301	162,558	138,347.03	Note (2)
	Disclosure 302-1	Renewable fuel sources	Gigajoule	NA	11,781	10,539	13,602	14,743	12,741.69	Note (2)
	Disclosure 302-1	Electrical Consumption	Gigajoule	NA	15,164	14,871	15,234	12,947	11,729.69	Note (2)
		Renewable fuel sources	%	NA	4.69%	5.00%	6.32%	7.75%	8%	
	Disclosure 302-2	Energy consumption outside of the organization	Gigajoule	NA	NA	NA	NA	NA	NA	
	Disclosure 302-3	Energy intensity ratio for the production unit	Gigajoule/production unit	0.5	0.51	0.45	0.4	0.36	0.31	Note (2)
	Disclosure 302-4	Total energy consumption reduction (electricity and/or fuel)	Gigajoule	NA	NA	40,412	36,249	24,889	52,320	Note (1)
	Disclosure 302-5	Reductions in energy requirements of products and services	Gigajoule	NA	NA	NA	NA	NA	NA	
Construction Business										
	Disclosure 302-1	Energy consumption within the organization	Gigajoule	NA	NA	NA	NA	109,894	67,831.00	Note (6)
	Disclosure 302-1	Non-renewable fuel sources	Gigajoule	NA	NA	NA	NA	102,876	62,160.08	Note (6)
	Disclosure 302-1	Renewable fuel sources	Gigajoule	NA	NA	NA	NA	3,181	2,133.92	Note (6)
	Disclosure 302-1	Electrical Consumption	Gigajoule	NA	NA	NA	NA	3,837	3,537.00	Note (6)
		Renewable fuel sources	%	NA	NA	NA	NA	2.89%	0.03	Note (6)
	Disclosure 302-2	Energy consumption outside of the organization	Gigajoule	NA	NA	NA	NA	NA	NA	
	Disclosure 302-3	Energy intensity ratio for the production unit	Gigajoule/production unit	NA	NA	NA	NA	0.7	1	Note (6)
	Disclosure 302-4	Total energy consumption reduction (electricity and/or fuel)	Gigajoule	NA	NA	NA	NA	NA	NA	
	Disclosure 302-5	Reductions in energy requirements of products and services	Gigajoule	NA	NA	NA	NA	NA	NA	

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Standard		Topics of data disclosure	Performance							Note(s) /Omission(s)
SDGs	Disclosure		Unit	2017	2018	2019	2020	2021	2022	
Water										
Water Management										
Goal 6	Asphalt Business (Thailand)									
	Disclosure 303	Water policy and guidelines on environment management	Yes/No	•	•	•	•	•	•	
		Principle, standard or practice guidelines on environment management that the Group implements and refers to such as ISO/DIS 24526 ISO 14046	Yes/No	•	•	•	•	•	•	
		Plan to reduce water consumption	Yes/No	•	•	•	•	•	•	
		Target on reduction of water consumption	Yes/No	•	•	•	•	•	•	
	Disclosure 303-3	Total water withdrawal	Mega liters	89.02	62.38	54.92	48.77	47.41	37.35	
		• Total Surface water	Mega liters	NA	NA	NA	NA	NA	NA	
		• Surface water (Freshwater ≤1,000 mg/L Total Dissolved Solids)	Mega liters	NA	NA	NA	NA	NA	NA	
		• Surface water (Other water >1,000 mg/L Total Dissolved Solids)	Mega liters	NA	NA	NA	NA	NA	NA	
		• Total Groundwater	Mega liters	53.3	32.4	30	24.7	23.9	20.11	Note (4)
		• Groundwater (Freshwater ≤1,000 mg/L Total Dissolved Solids)	Mega liters	32.5	16.4	16.9	12.8	12.8	11.85	Note (4)
		• Groundwater (Other water >1,000 mg/L Total Dissolved Solids)	Mega liters	20.8	16.1	13.1	11.8	11.2	8.27	Note (4)
		• Total third-party water	Mega liters	35.7	29.9	24.9	24.1	23.5	17.24	Note (4)
		• Third-party water (Freshwater ≤1,000 mg/L Total Dissolved Solids)	Mega liters	35.7	29.9	24.9	24.1	23.5	17.24	Note (4)
		• Third-party water (Other water >1,000 mg/L Total Dissolved Solids)	Mega liters	0	0	0	0	0	0	Note (4)
		Disclosure 303-4, Disclosur 306-1	Total water discharge	Mega liters	0	0	0	0	0	2.78
	Disclosure 303-4	The amount of effluent divided by discharge source								
		• Surface water	Mega liters	NA	NA	NA	NA	NA	2.78	Note (4)
		• Groundwater	Mega liters	NA	NA	NA	NA	NA	0	Note (4)
		• Sea water	Mega liters	NA	NA	NA	NA	NA	0	Note (4)
		• Water to another organization	Mega liters	NA	NA	NA	NA	NA	0	Note (4)
		The amount of effluent is classified by type of discharge water								
		• Total Dissolved Solids ≤ 1,000 mg/l	Mega liters	NA	NA	NA	NA	NA	1.74	Note (4)
		• Total Dissolved Solids > 1,000 mg/l	Mega liters	NA	NA	NA	NA	NA	1.04	Note (4)
		Total recycled water discharge	Mega liters	9.68	8.18	4.25	3.58	2.6	2.78	Note (4)
	Disclosure 303-5	Water consumption	Mega liters	98.7	70.6	59.2	52.3	50	40.14	Note (4)
		Water consumption intensity ratio	Cubic meters/production unit	0.18	0.14	0.13	0.1	0.09	0.08	Note (4)
		The rate of water withdrawal per unit of total production	Cubic meters/production unit	0.16	0.13	0.12	0.09	0.09	0.07	Note (4)

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Standard		Topics of data disclosure	Performance							Note(s) /Omission(s)	
SDGs	Disclosure		Unit	2017	2018	2019	2020	2021	2022		
Greenhouse Gas Emissions											
Greenhouse Gas Emissions Management											
Goal 13	Disclosure 305	Policy and guidelines on environment management: Greenhouse gas emissions	Yes/No	•	•	•	•	•	•		
		Principle, standard or practice on environment that the Group implements and references	Yes/No	•	•	•	•	•	•		
		Plan for greenhouse gas emissions reduction	Yes/No	•	•	•	•	•	•		
		Target set for greenhouse gas emissions reduction	Yes/No	•	•	•	•	•	•		
	Asphalt Business (Thailand)										
		Total greenhouse gas emissions reduction	Tons of CO ₂ equivalent	21,942.00	20,415.00	17,814.00	17,275.95	15,150.72	12,996.45	Note (2)	
	Disclosure 305-1	• Direct (Scope 1) GHG emissions	Tons of CO ₂ equivalent	19,166.00	18,309.00	15,749.00	15,160.50	13,352.82	11,367.65	Note (2)	
	Disclosure 305-2	• Indirect (Scope 2) GHG emissions	Tons of CO ₂ equivalent	2,776.00	2,106.00	2,065.00	2,115.45	1,797.90	1,628.80	Note (2)	
	Disclosure 305-3	• Other indirect (Scope 3) GHG emissions	Tons of CO ₂ equivalent	NA	NA	NA	NA	NA	NA		
	Disclosure 305-4	GHG emissions intensity (Scopes 1&2)	Tons of CO ₂ equivalent per ton of production	0.04	0.041	0.038	0.032	0.029	0.024	Note (2), (7)	
	Disclosure 305-5	Reduction of GHG emissions from base year 2020	Tons of CO ₂ equivalent	NA	NA	NA	NA	2,125	4,279.50		
			%	NA	NA	NA	NA	12.30%	0.25		
	Disclosure 305-6	Emissions of ozone-depleting substances (ODS)	-	NA	NA	NA	NA	NA	NA		
		Quantitative targets on significant air emissions									
	Disclosure 305-7	• Nitrogen Oxide (NOx)	Kilogram	NA	5,278.67	3,505.07	3,856.48	8,067.00	7,365.11	Note (4)	
	Disclosure 305-7	• Sulfur Oxide (SOx)	Kilogram	NA	12,955.67	8,390.40	5,503.33	7,576.00	2,805.95	Note (4)	
	Disclosure 305-7	• Carbon Monoxide (CO)	Kilogram	NA	4,035.47	3,799.86	3,756.71	22,469.00	4,208.40	Note (4)	
		• Total Suspended Particulate (TSP)	Kilogram	NA	1,475.93	1,619.44	1,248.66	929	450.23	Note (4)	
		• Nitrogen Oxide (NOx)	Kilogram/ production unit	NA	0.011	0.008	0.007	0.015	0.01	Note (4)	
		• Sulfur Oxide (SOx)	Kilogram/ production unit	NA	0.026	0.018	0.01	0.014	0.01	Note (4)	
		• Carbon Monoxide (CO)	Kilogram/ production unit	NA	0.008	0.008	0.007	0.042	0.01	Note (4)	
		• Total Suspended Particulate (TSP)	Kilogram/ production unit	NA	0.003	0.003	0.002	0.002	0	Note (4)	
Marine Business											
	Total greenhouse gas emissions reduction	Tons of CO ₂ equivalent	NA	NA	NA	58,083.41	57,054.20	54,699.00			
Disclosure 305-1	• Direct (Scope 1) GHG emissions	Tons of CO ₂ equivalent	NA	NA	NA	58,083.41	57,054.20	54,699.00			
Disclosure 305-2	• Indirect (Scope 2) GHG emissions	Tons of CO ₂ equivalent	NA	NA	NA	0	0	0			
Disclosure 305-3	• Other indirect (Scope 3) GHG emissions	Tons of CO ₂ equivalent	NA	NA	NA	NA	NA	NA			
Disclosure 305-4	GHG emissions intensity (Scopes 1&2)	Tons of CO ₂ equivalent per ton of production	NA	NA	NA	1.1	1.1	1.1			
Disclosure 305-5	Reduction of GHG emissions from base year 2020	Tons of CO ₂ equivalent	NA	NA	NA	NA	NA	NA			
		%	NA	NA	NA	NA	NA	NA			
Disclosure 305-6	Emissions of ozone-depleting substances (ODS)	NA	NA	NA	NA	NA	NA	NA			

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Standard		Topics of data disclosure	Performance							Note(s) /Omission(s)
SDGs	Disclosure		Unit	2017	2018	2019	2020	2021	2022	
Goal 13		Quantitative targets on significant air emissions								
	Disclosure 305-7	• Nitrogen Oxide (NOx)	Kilogram	NA	NA	NA	NA	NA	NA	
	Disclosure 305-7	• Sulfur Oxide (SOx)	Kilogram	NA	NA	NA	NA	NA	NA	
	Disclosure 305-7	• Carbon Monoxide (CO)	Kilogram	NA	NA	NA	NA	NA	NA	
		• Total Suspended Particulate (TSP)	Kilogram	NA	NA	NA	NA	NA	NA	
		• Nitrogen Oxide (NOx)	Kilogram/ production unit	NA	NA	NA	NA	NA	NA	
		• Sulfur Oxide (SOx)	Kilogram/ production unit	NA	NA	NA	NA	NA	NA	
		• Carbon Monoxide (CO)	Kilogram/ production unit	NA	NA	NA	NA	NA	NA	
		• Total Suspended Particulate (TSP)	Kilogram/ production unit	NA	NA	NA	NA	NA	NA	
Construction Business										
	Total greenhouse gas emissions reduction		Tons of CO ₂ equivalent	NA	NA	NA	NA	3,290.00	5,547.95	Note (6)
Disclosure 305-1	• Direct (Scope 1) GHG emissions		Tons of CO ₂ equivalent	NA	NA	NA	NA	2,885.00	5,056.80	Note (6)
Disclosure 305-2	• Indirect (Scope 2) GHG emissions		Tons of CO ₂ equivalent	NA	NA	NA	NA	404	491.14	Note (6)
Disclosure 305-3	• Other indirect (Scope 3) GHG emissions		Tons of CO ₂ equivalent	NA	NA	NA	NA	NA	NA	
Disclosure 305-4	GHG emissions intensity (Scopes 1&2)		Tons of CO ₂ equivalent per ton of production	NA	NA	NA	NA	NA	0.08	Note (6)
Disclosure 305-5	Reduction of GHG emissions from base year 2020	Tons of CO ₂ equivalent	NA	NA	NA	NA	NA	NA	NA	
		%	NA	NA	NA	NA	NA	NA	NA	
Disclosure 305-6	Emissions of ozone-depleting substances (ODS)		NA	NA	NA	NA	NA	NA	NA	
Quantitative targets on significant air emissions										
Disclosure 305-7	• Nitrogen Oxide (NOx)		Kilogram	NA	NA	NA	NA	NA	NA	
Disclosure 305-7	• Sulfur Oxide (SOx)		Kilogram	NA	NA	NA	NA	NA	NA	
Disclosure 305-7	• Carbon Monoxide (CO)		Kilogram	NA	NA	NA	NA	NA	NA	
	• Total Suspended Particulate (TSP)		Kilogram	NA	NA	NA	NA	NA	NA	
	• Nitrogen Oxide (NOx)		Kilogram/ production unit	NA	NA	NA	NA	NA	NA	
	• Sulfur Oxide (SOx)		Kilogram/ production unit	NA	NA	NA	NA	NA	NA	
	• Carbon Monoxide (CO)		Kilogram/ production unit	NA	NA	NA	NA	NA	NA	
	• Total Suspended Particulate (TSP)		Kilogram/ production unit	NA	NA	NA	NA	NA	NA	

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Standard		Topics of data disclosure	Performance							Note(s) /Omission(s)
SDGs	Disclosure		Unit	2017	2018	2019	2020	2021	2022	
Effluents, Waste and Pollution										
Effluents, Waste and Pollution Management										
Goal 12	Disclosure 306	Policy and guidelines on environment management: Effluents, waste and pollution	Yes/No	•	•	•	•	•	•	
		Principle, standard or practice guidelines on environment management that the Group implements and references	Yes/No	•	•	•	•	•	•	
		Plan to reduce effluents, waste, and pollution	Yes/No	•	•	•	•	•	•	
		Target on reduction of effluents, waste, and pollution	Yes/No	•	•	•	•	•	•	
Goal 12	Asphalt Business (Thailand)									
	Disclosure 306-1	• Total water discharge, by quality and destination	Million cubic meters	0	0	0	0	0	2.78	Note (2)
	Disclosure 306-2	• Total waste, by type and method	Ton	367	431	405	461.32	247.28	268.05	Note (3)
		- Total weight of hazardous waste	Ton	NA	NA	NA	212.2	93.52	174.01	Note (3)
		* Sorting	Ton	NA	NA	NA	0	0	0	Note (3)
		* Storage	Ton	NA	NA	NA	0	0.07	0.12	Note (3)
		* Reuse	Ton	NA	NA	NA	0	0	4.25	Note (3)
		* Recycle	Ton	NA	NA	NA	194.8	93.45	169.64	Note (3)
		* Recovery	Ton	NA	NA	NA	0	0	0	Note (3)
		* Treatment	Ton	NA	NA	NA	0	0	0	Note (3)
		* Incineration	Ton	NA	NA	NA	0.9	0	0	Note (3)
		* Disposal	Ton	NA	NA	NA	16.5	0	0	Note (3)
		- Total weight of non-hazardous waste	Ton	NA	NA	NA	249.12	153.76	94.04	Note (3)
		* Sorting	Ton	NA	NA	NA	218.44	85.46	33.48	Note (3)
		* Storage	Ton	NA	NA	NA	0	0	0	Note (3)
		* Reuse	Ton	NA	NA	NA	0	0	0.01	Note (3)
		* Recycle	Ton	NA	NA	NA	0	40.05	32.98	Note (3)
		* Recovery	Ton	NA	NA	NA	0	0	0	Note (3)
		* Treatment	Ton	NA	NA	NA	0	0	0	Note (3)
		* Incineration	Ton	NA	NA	NA	0	0	0	Note (3)
	* Disposal	Ton	NA	NA	NA	30.68	28.25	27.57	Note (3)	
	Marine Business									
		- Total weight of hazardous waste								
		* Recycle	Cubic meters	NA	NA	NA	NA	0	0	
		* Treatment	Cubic meters	NA	NA	NA	NA	0	0	
		* Incineration with out energy recovery	Cubic meters	NA	NA	NA	NA	0	0	
		* Disposal	Cubic meters	NA	NA	NA	NA	1.71	0.69	
		- Total weight of non-hazardous waste								
		* Recycle	Cubic meters	NA	NA	NA	NA	92.44	85.84	
* Treatment		Cubic meters	NA	NA	NA	NA	120.73	122.89		
* Incineration with out energy recovery		Cubic meters	NA	NA	NA	NA	3.18	1.02		
* Disposal	Cubic meters	NA	NA	NA	NA	30.9	30.25			

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Standard		Topics of data disclosure	Performance							Note(s) / Omission(s)
SDGs	Disclosure		Unit	2017	2018	2019	2020	2021	2022	
	Disclosure 306-3	• Total volume of recorded significant spills of asphalt and chemicals	Ton	NA	NA	NA	1.78	31.81	20.09	Note (3)
		- From Tipco Asphalt's own operations	Ton	NA	NA	NA	1.78	3.81	3.40	Note (3)
		* Total number of recorded significant asphalt and Non asphalt spills less than 200 kg./time	Times	NA	NA	NA	NA	12.00	8.00	Note (3)
		* Total quantity of significant asphalt spills less than 200 kg./time	Ton	NA	NA	NA	NA	0.81	0.61	Note (3)
		* Total number of recorded significant asphalt and Non asphalt spills between 200-20,000 kg./time	Times	NA	NA	NA	3.00	4.00	3.00	Note (3)
		* Total quantity of significant asphalt and Non asphalt spills between 200-20,000 kg./time	Ton	NA	NA	NA	1.78	3.00	2.79	Note (3)
		* Total number of recorded significant asphalt and Non asphalt spills more than 20,000 kg./time	Times	NA	NA	NA	0.00	0.00	0.00	Note (3)
		* Total quantity of significant asphalt and Non asphalt spills more than 200-20,000 kg./time	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)
Goal 12	Disclosure 306-3	- From external unit (distribution): Delivery via trucks	Ton	NA	NA	NA	0.00	28.00	16.69	Note (3)
		* Total number of recorded significant asphalt spills less than 200 kg./time	Times	NA	NA	NA	NA	0.00	1.00	Note (3)
		* Total quantity of significant asphalt spills less than 200 kg./time	Ton	NA	NA	NA	NA	0.00	0.02	Note (3)
		* Total number of recorded significant asphalt spills between 200-20,000 kg./time	Times	NA	NA	NA	0.00	1.00	1.00	Note (3)
		* Total quantity of significant asphalt spills between 200-20,000 kg./time	Ton	NA	NA	NA	0.00	3.00	16.67	Note (3)
		* Total number of recorded significant asphalt spills more than 20,000 kg./time	Times	NA	NA	NA	0.00	1.00	0.00	Note (3)
		* Total quantity of significant asphalt spills more than 20,000 kg./time	Ton	NA	NA	NA	0.00	25.00	0.00	Note (3)
		Asphalt Business (Thailand)								
	Disclosure306-1	Waste generation and significant waste-related impacts	Yes/No	•	•	•	•	•	•	
	Disclosure306-2	Management of significant wasterelated impacts	Yes/No	•	•	•	•	•	•	
	Disclosure306-3	• Total waste	Ton	NA	NA	NA	443.92	247.28	268.05	Note (3)
		- Waste generated	Ton	367	431	405	461.32	247.28	268.05	Note (3)
		* Hazardous waste	Ton	NA	NA	NA	212.20	93.52	174.01	Note (3)
	Disclosure306-4	* Non-hazardous waste	Ton	NA	NA	NA	249.12	153.76	94.04	Note (3)
		- Waste diverted from disposal	Ton	NA	NA	NA	413.24	219.03	240.48	Note (3)
		* Hazardous waste	Ton	NA	NA	NA	194.80	93.52	174.01	Note (3)
		* Non-hazardous waste	Ton	NA	NA	NA	218.44	125.51	66.48	Note (3)
	Disclosure306-5	- Waste directed to disposal	Ton	NA	NA	NA	48.08	28.25	27.57	Note (3)
		* Hazardous waste	Ton	NA	NA	NA	17.40	0.00	0.00	Note (3)
		* Non-hazardous waste	Ton	NA	NA	NA	30.68	28.25	27.57	Note (3)
	Disclosure306-4	- Hazardous waste diverted from disposal	Ton	NA	NA	NA	194.80	93.52	174.01	Note (3)
		Onsite								Note (3)
		* Reused	Ton	NA	NA	NA	0.00	0.00	4.25	Note (3)
		* Recycle	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)
		* Other recovery operations	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)
		Offsite								Note (3)
		* Reused	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)
		* Recycle	Ton	NA	NA	NA	194.80	93.45	169.64	Note (3)
		* Other recovery operations	Ton	NA	NA	NA	0.00	0.07	0.12	Note (3)

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SDGs	Disclosure		Unit	2017	2018	2019	2020	2021	2022	
	Disclosure306-4	- Non-hazardous waste diverted from disposal	Ton	NA	NA	NA	218.44	125.51	66.48	Note (3)
		Onsite								Note (3)
		* Reused	Ton	NA	NA	NA	0.00	0.00	0.01	Note (3)
		* Recycle	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)
		* Other recovery operations	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)
		Offsite								Note (3)
		* Reused	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)
		* Recycle	Ton	NA	NA	NA	0.00	40.05	32.98	Note (3)
		* Other recovery operations	Ton	NA	NA	NA	218.44	85.46	33.48	Note (3)
Goal 12	Disclosure306-5	- Hazardous waste directed to disposal	Ton	NA	NA	NA	0.00	-	0.00	Note (3)
		Onsite								Note (3)
		* Incineration with energy recovery	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)
		* Incineration without energy recovery	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)
		* Landfilling	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)
		* Other recovery operations	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)
		Offsite								Note (3)
		* Incineration with energy recovery	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)
		* Incineration without energy recovery	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)
		* Landfilling	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)
	* Other recovery operations	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)	
	Disclosure306-5	- Non-hazardous waste directed to disposal	Ton	NA	NA	NA	30.68	28.25	27.57	Note (3)
		Onsite								Note (3)
		* Incineration with energy recovery	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)
		* Incineration without energy recovery	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)
		* Landfilling	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)
		* Other recovery operations	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)
		Offsite								Note (3)
		* Incineration with energy recovery	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)
		* Incineration without energy recovery	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)
		* Landfilling	Ton	NA	NA	NA	30.68	28.25	27.57	Note (3)
	* Other recovery operations	Ton	NA	NA	NA	0.00	0.00	0.00	Note (3)	
Marine Business										
Disclosure306-3	- Waste generated	Cubic meters	NA	NA	NA	NA	248.96	240.69		
	* Hazardous waste	Cubic meters	NA	NA	NA	NA	1.71	0.69		
	* Non-hazardous waste	Cubic meters	NA	NA	NA	NA	247.25	240.00		
Disclosure306-4	- Waste diverted from disposal	Cubic meters	NA	NA	NA	NA	213.17	208.73		
	* Hazardous waste	Cubic meters	NA	NA	NA	NA	0.00	0.00		
	* Non-hazardous waste	Cubic meters	NA	NA	NA	NA	213.17	208.73		

Environmental

Standard		Topics of data disclosure	Performance							Note(s) /Omission(s)
SDGs	Disclosure		Unit	2017	2018	2019	2020	2021	2022	
	Disclosure306-5	- Waste directed to disposal	Cubic meters	NA	NA	NA	NA	35.79	31.96	
		* Hazardous waste	Cubic meters	NA	NA	NA	NA	1.71	0.69	
		* Non-hazardous waste	Cubic meters	NA	NA	NA	NA	34.08	31.27	
	Disclosure306-4	- Hazardous waste diverted from disposal	Cubic meters	NA	NA	NA	NA	0.00	0.00	
		Onsite								
		* Reused	Cubic meters	NA	NA	NA	NA	0.00	0.00	
		* Recycle	Cubic meters	NA	NA	NA	NA	0.00	0.00	
		* Other recovery operations	Cubic meters	NA	NA	NA	NA	0.00	0.00	
		Offsite								
		* Reused	Cubic meters	NA	NA	NA	NA	0.00	0.00	
		* Recycle	Cubic meters	NA	NA	NA	NA	0.00	0.00	
		* Other recovery operations	Cubic meters	NA	NA	NA	NA	0.00	0.00	
Goal 12	Disclosure306-4	- Non-hazardous waste diverted from disposal	Cubic meters	NA	NA	NA	NA	213.17	208.73	
		Onsite								
		* Reused	Cubic meters	NA	NA	NA	NA	0.00	0.00	
		* Recycle	Cubic meters	NA	NA	NA	NA	0.00	0.00	
		* Other recovery operations	Cubic meters	NA	NA	NA	NA	0.00	122.89	
		Offsite								
		* Reused	Cubic meters	NA	NA	NA	NA	0.00	0.00	
		* Recycle	Cubic meters	NA	NA	NA	NA	92.44	85.84	
		* Other recovery operations	Cubic meters	NA	NA	NA	NA	120.73	0.00	
	Disclosure306-5	- Hazardous waste directed to disposal	Cubic meters	NA	NA	NA	NA	1.71	0.69	
		Onsite								
		* Incineration with energy recovery	Cubic meters	NA	NA	NA	NA	0.00	0.00	
		* Incineration without energy recovery	Cubic meters	NA	NA	NA	NA	0.00	0.00	
		* Landfilling	Cubic meters	NA	NA	NA	NA	0.00	0.00	
		* Other recovery operations	Cubic meters	NA	NA	NA	NA	0.00	0.00	
		Offsite								
		* Incineration with energy recovery	Cubic meters	NA	NA	NA	NA	0.00	0.00	
		* Incineration without energy recovery	Cubic meters	NA	NA	NA	NA	0.00	0.00	
		* Landfilling	Cubic meters	NA	NA	NA	NA	1.71	0.69	
		* Other recovery operations	Cubic meters	NA	NA	NA	NA	0.00	0.00	
	Disclosure306-5	- Non-hazardous waste directed to disposal	Cubic meters	NA	NA	NA	NA	34.08	31.27	
		Onsite								
		* Incineration with energy recovery	Cubic meters	NA	NA	NA	NA	0.00	0.00	
		* Incineration without energy recovery	Cubic meters	NA	NA	NA	NA	0.00	1.02	
		* Landfilling	Cubic meters	NA	NA	NA	NA	0.00	0.00	
		* Other recovery operations	Cubic meters	NA	NA	NA	NA	0.00	0.00	

Environmental

Standard		Topics of data disclosure	Performance							Note(s) /Omission(s)
SDGs	Disclosure		Unit	2017	2018	2019	2020	2021	2022	
		Offsite								
		* Incineration with energy recovery	Cubic meters	NA	NA	NA	NA	0.00	0.00	
		* Incineration without energy recovery	Cubic meters	NA	NA	NA	NA	3.18	0.00	
		* Landfilling	Cubic meters	NA	NA	NA	NA	30.90	30.25	
		* Other recovery operations	Cubic meters	NA	NA	NA	NA	0.00	0.00	

Note :

NA (Not Available): No data collected

(1) Total energy consumption reduction (electricity and/or fuel) in 2019-2020 as compared to baseline year 2018 and total energy consumption reduction in 2021-2022 as compared to baseline year 2020

(2) Covered the head office and 5 asphalt plants, namely the Nakhon Ratchasima factory, Phitsanulok factory, Rayong factory, Suratthani factory , and Phra Pradaeng warehouse (Assurance statement)

(3) Covered the 5 asphalt plants, namely the Nakhon Ratchasima factory, Phitsanulok factory, Rayong factory, Suratthani factory , and Phra Pradaeng warehouse (Assurance statement)

(4) Covered the head office and 5 asphalt plants, namely the Nakhon Ratchasima factory, Phitsanulok factory, Rayong factory, Suratthani factory , and Phra Pradaeng warehouse.

(5)) Covered the 5 asphalt plants, namely the Nakhon Ratchasima factory, Phitsanulok factory, Rayong factory, Suratthani factory , and Phra Pradaeng warehouse.

(6) Covered then Thai Slurry Seal Company Limited

(7) The improvement values of emission factor in 2020-2021 according to emission factor in 2022