JATMA issued "Tyre LCCO₂ calculation guidelines Ver.3.0.1" due to correction of some data in Ver.3.0.

Details of the correction, please see the comparison table.

December 2021

The Japan Automobile Tyre Manufacturers Association, Inc.

Page		(Current (Ver.3.0)				Cor	rection (Ver.3.0.1)		
P9	Table	e 5: GHG emissio	n coefficients for tyre raw material production			Tabl	a 5: 0110 aminaia			
	Tubi		(Unit: kgCO ₂ e/kg)			Iabi	e 5: GHG emissio	n coefficients for tyre raw material production (Unit: kgCO ₂ e/kg)		
	Raw material	GHG emission coefficient	Source and background		Ra	aw material	GHG emission coefficient	Source and background		
	New rubber	_	_		N	lew rubber	_	_		
	Natural rubber	6.71 × 10 ⁻¹	Allen, P. W., the Malaysian Rubber Producers Research Association			Natural rubber	6.71 × 10 ⁻¹	Allen, P. W., the Malaysian Rubber Producers Research Association		
			"Energy accounting: natural versus synthetic rubber" Rubber development vol. 32, No. 4, 1979					"Energy accounting: natural versus synthetic rubber" Rubber development vol. 32, No. 4, 1979		
	Synthetic rubber	3.71	Weighted average of the emission coefficients for styrene-butadiene rubber and butadiene rubber (IDEA) with the quantity of synthetic rubber shipped for tyres and tubes (statistics by the Japan Rubber Manufacturers Association, data in 2018)			Synthetic rubber	3.71	Weighted average of the emission coefficients for styrene-butadiene rubber and butadiene rubber (IDEA) with the quantity of synthetic rubber shipped for tyres and tubes (statistics by the Japan Rubber Manufacturers Association, data in 2018)		
	Carbon black	***	JLCA database, carbon black (2017)		Ca	arbon black	***	JLCA database, carbon black (2017)		
	Process oil ***		IDEA, lubricating oil (including grease) *The unit was converted using 0.88 kg/l of the specific gravity surveyed by JATMA.	The unit was converted using 0.88 kg/l of the specific ravity surveyed by JATMA. *The unit was converted using 0.88 kg/l of the specific ravity surveyed by JATMA.						
	Total of organic rubber chemicals	***	IDEA, organic rubber chemical			al of organic rubber chemicals	***	IDEA, organic rubber chemical		
	Inorganic compounding agent	_	_			Inorganic mpounding agent	_	_		
	Zinc oxide	***	IDEA, zinc oxide			Zinc oxide	***	IDEA, zinc oxide		
	Sulfur	***	IDEA, recovered sulfur		[Sulfur	***	IDEA, recovered sulfur		
	Silica	***	IDEA, silica gel			Silica	***	IDEA, silica gel		
	Total of fibers	<u>6.92</u>	Weighted average of the emission coefficients for polyester tyre cords, nylon tyre cords, and rayon (IDEA) with the consumption ratios (statistics by JATMA, data in FY2018)			tal of fibers	<u>7.16</u>	Weighted average of the emission coefficients for polyester tyre cords, nylon tyre cords, and rayon (IDEA) with the consumption ratios (statistics by JATMA, data in FY2018)		
	Steel cord	***	IDEA, steel ropes (including hard steel stranded wire)		5	Steel cord	***	IDEA, steel ropes (including hard steel stranded wire)		
	Bead wire	***	IDEA, steel ropes (including hard steel stranded wire)		E	Bead wire	***	IDEA, steel ropes (including hard steel stranded wire)		

Page		Curi	rent (Ver.3	.0)			Correction (Ver.3.0.1)										
P10		Table 6: GHG emiss	ions in raw m	aterial produ					Table 6: GHG emi	ssions in raw r	naterial produ	ıction					
						(gCO₂e/tyre)							gCO₂e/tyre)				
	Ra	aw material	PC		Т			F	Raw material	P		TE					
			Conventio nal tyre	Fuel- efficient tyre	Conventio nal tyre	Fuel- efficient tyre				Conventio nal tyre	Fuel- efficient tyre	Conventio nal tyre	Fuel- efficient tyre				
	N	ew rubber	_	_	_	_			New rubber	_	_	_	_				
		Natural rubber	1.1	1.2	13.4	13.6			Natural rubber	1.1	1.2	13.4	13.6				
	S	ynthetic rubber	9.4	7.5	22.1	20.2			Synthetic rubber	9.4	7.5	22.1	20.2				
	Ca	arbon black	***	***	***	***			Carbon black	***	***	未完大	***				
	P	rocess oil	***	***	***	***		-	Process oil	***	***	***	***				
	Total of orga	nic rubber chemicals	***	***	***	*** ***		Total of org	anic rubber chemicals	***	***	***	***				
	Inorganic o	compounding agent	_	_	_	_		Inorganic	compounding agent	_	_	_	_				
		Zinc oxide	***	***	***	***			Zinc oxide	***	***	***	***				
		Sulfur	***	***	***	***			Sulfur	***	***	***	***				
		Silica	***	***	***	***			Silica	***	***	***	***				
	То	tal of fibers	2.9 2.1 0.0 0.7 Total of fibers							3.0	2.2	0.0	0.7				
	5	Steel cord	***	***	***	***			Steel cord	***	***	***	***				
		Bead wire	***	***	***	***			Bead wire	***	***	***	***				
		Total	26.1 23.6 137.3 <u>129</u>						Total	26.3	23.8	137.3	129.3				
P13	Tat	ole 10: GHG emissions in t		material prod		gCO₂e/tyre)		Tat	ole 10: GHG emissions in		material prod	ocurement stage (Unit: kgCO₂e/tyre					
		O.G.O.O.		Fuel		Fuel-			Class		Fuel-	'	Fuel-				
			Convention nal tyre	efficient tyre	Conventio nal tyre	efficient tyre				Conventi nal tyre	0 officient	Conventio nal tyre	efficient tyre				
	Raw material	Raw material production	<u>26.1</u>	23.6	137.3	<u>129.2</u>		Raw material	Raw material production	on <u>26.3</u>	23.8	137.3	129.3				
	procurement stage	Raw material transportation	1.1	1.1	9.4	9.3		procurement stage	Raw material transportation	1.1	1.1	9.4	9.3				
		Total	<u>27.3</u>	24.8	<u>146.6</u>	<u>138.5</u>			Total	27.4	24.9	146.7	138.6				

Page		Current (Ver.	3.0)		(Correction (Ve	er.3.0.1)	
P33	Table 32: Retread compound rav	v material configu		HG emissions in	Table 32: Retread compound rav	v material config manufacturing		HG emissions in
	Class	Configuration ratio (kg)	GHG emission coefficient (kgCO ₂ e/kg)	GHG emissions (kgCO ₂ e)	Class	Configuration ratio (kg)	GHG emission coefficient (kgCO ₂ e/kg)	GHG emissions (kgCO ₂ e)
	Natural rubber	70	6.71 × 10 ⁻¹	46.97	Natural rubber	70	6.71 × 10 ⁻¹	46.97
	Synthetic rubber	30	3.71	111.30	Synthetic rubber	30	3.71	111.30
	Carbon black	48	***	***	Carbon black	48	***	***
	Process oil	7	***	***	Process oil	7	***	***
	Organic rubber chemical	7	***	***	Organic rubber chemical	7	***	***
	Zinc oxide	3	***	***	Zinc oxide	3	***	***
	Sulfur	2	***	***	Sulfur	2	***	***
	Silica	0	***	0	Silica	0	***	0
	Total	167	_	<u>374.30</u>	Total	167	_	<u>375.35</u>
	Total raw material weight/ new rubber ratio	1.67			Total raw material weight/ new rubber ratio	1.67		
	*The configuration ratios were of	letermined based	d on JATMA survey.		*The configuration ratios were d	letermined base	d on JATMA survey.	

Page	Current (Ver.3.0)	Correction (Ver.3.0.1)								
P34	Accordingly, the GHG emissions per kg of retread compound are as shown below. (GHG emissions per kg of retread compound) = GHG emissions/total material weight (kg) = 374.30/167 = 2.24 kgCO ₂ e/kg	Accordingly, the GHG emissions per kg of retread compound are as shown below. (GHG emissions per kg of retread compound) = GHG emissions/total material weight (kg) = 375.35/167 = 2.25 kgCO ₂ e/kg								
	(ii) Retread compound weight The ratio of the number of summer tyres to that of winter tyres was set to 1:1 based on an inquiry to Japan Retreaders' Association for calculation. Based on a JATMA internal survey, the weights were set as follows: Summer tyres: 15 kg; winter tyres: 19 kg $15 \times 0.5 + 19 \times 0.5 = 17.0$ kg	(ii) Retread compound weight The ratio of the number of summer tyres to that of winter tyres was set to 1:1 based on an inquiry to Japan Retreaders' Association for calculation. Based on a JATMA internal survey, the weights were set as follows: Summer tyres: 15 kg; winter tyres: 19 kg 15 × 0.5 + 19 × 0.5 = 17.0 kg								
	(iii) GHG emissions per tyre in the retread compound raw material stage (GHG emissions in the retread compound raw material stage) = (GHG emissions per kg of retread compound) × retread compound weight = 2.24 × 17.0 = 38.10 kgCO ₂ e/tyre	(iii) GHG emissions per tyre in the retread compound raw material stage (GHG emissions in the retread compound raw material stage) = (GHG emissions per kg of retread compound) × retread compound weight = 2.25 × 17.0 = 38.21 kgCO ₂ e/tyre								
	Table 33: GHG emissions per tyre in the retread compound raw material stage	Table 33: GHG emissions per tyre in the retread compound raw material stage								
	(Unit: kgCO₂e/tyre) Class GHG emissions	(Unit: kgCO₂e/tyre)								
	GHG emissions per tyre 38.10	Class GHG emissions GHG emissions per tyre 38.21								

Page	Current (V	er.3.0)			Correction (Ver.3.0.1)									
P37	Table 39: GHG emissions per tyre in p	roduct reuse th	-	ading kgCO ₂ e/tyre)	Table 39: GHG emissions per tyre in	product re	_	reading nit: kgCO₂e/tyre)						
	Class		GHG	3 emissions	Class		G	HG emissions						
	Retread compound raw material production stag	je		<u>38.1</u>	Retread compound raw material production st	age		38.2						
	Retread compound raw material transportation s	stage		3.1	Retread compound raw material transportation		3.1							
	Retread compound mixing stage			2.1	Retread compound mixing stage		2.1							
	Retread tyre production stage			21.3	Retread tyre production stage		21.3							
	Total GHG emissions per tyre in product reuse the	rough retreadi	ng	<u>64.5</u>	Total GHG emissions per tyre in product reuse	through re	treading	64.6						
P38	Table 40: GHG emission reduction effects per	tyre in product	(Uni	gh retreading it: kgCO ₂ e/tyre) ΓΒ	Table 40: GHG emission reduction effects per	tyre in prod	(Uni	gh retreading t: kgCO ₂ e/tyre)						
		С	onventional tyre	Fuel-efficient tyre			Conventional tyre	Fuel-efficient tyre						
	GHG emission reduction in raw material pro-	duction	-137.3	-129.2	GHG emission reduction in raw material prod	uction	-137.3	<u>-129.3</u>						
	GHG emission reduction in raw material trans	portation	-9.4	-9.3	GHG emission reduction in raw material transp	ortation	-9.4	-9.3						
	GHG emission reduction in new tyre produ	iction	-39.5	-39.8	GHG emission reduction in new tyre produ	ction	-39.5	-39.8						
	Total GHG emission reduction per tyre in prod through retreading	uct reuse	-186.2	<u>-178.3</u>	Total GHG emission reduction per tyre in produ	ct reuse	-186.2	<u>-178.4</u>						
	unough retreating				through retreading									
P42	Table 45: GHG emission reduction effects in mate granulate and powder an Class	d reclaimed rut TB Convent	_	facturing rubber Unit	Table 45: GHG emission reduction effects in mate granulate and powder ar Class	d reclaime		ufacturing rubber Unit						
P42	Table 45: GHG emission reduction effects in mate	TB Convent ional tyre	Fuel- efficient		Table 45: GHG emission reduction effects in mate	Convent ional	TB Fuel- efficient							
P42	Table 45: GHG emission reduction effects in mate granulate and powder an Class	TB Convent ional tyre	Fuel- efficient tyre	Unit	Table 45: GHG emission reduction effects in mate granulate and powder ar Class	Convent ional tyre	TB Fuel- efficient tyre	Unit						
P42	Table 45: GHG emission reduction effects in mate granulate and powder an Class Weight of the recyclable part in an ELT (a) Yield to rubber granulate and powder and	TB Convent ional tyre 34.69 90	Fuel- efficient tyre 33.10	Unit kg/tyre	Table 45: GHG emission reduction effects in mategranulate and powder and Class Weight of the recyclable part in an ELT (a) Yield to rubber granulate and powder and	Convent ional tyre 34.69	TB Fuel- efficient tyre 33.10	Unit kg/tyre						
P42	Table 45: GHG emission reduction effects in mate granulate and powder and Class Weight of the recyclable part in an ELT (a) Yield to rubber granulate and powder and reclaimed rubber from an ELT (b)	TB Convent ional tyre 34.69 90	Fuel- officient tyre 33.10	Unit kg/tyre %	Table 45: GHG emission reduction effects in mategranulate and powder and Class Weight of the recyclable part in an ELT (a) Yield to rubber granulate and powder and reclaimed rubber from an ELT (b)	Convent ional tyre 34.69	Fuel- efficient tyre 33.10	Unit kg/tyre %						

Co	PC onventi Fuel- nal tyre efficien			life and recycling stage	Table 46:	GHG emissions an	d amission					
Co on-	PC onventi Fuel-							reduction	effects in	the end of	life and recycling stage	
Co on:	onventi Fuel-	T -		(Unit: kgCO₂e/tyre)				- ipododion	0.10010 111		(Unit: kgCO2e/tyre	
onal recovery			TB	Remarks		Class	Р	С	1	ГВ	Remarks	
	tyre	Conventi onal tyre	Fuel- efficient tyre				Conventi onal tyre	Fuel- efficient tyre	Conventi onal tyre	Fuel- efficient tyre		
	78%	4	2%	Fig. 4	Recycling	Thermal recovery	78		4	2%	Fig. 4	
luct reuse	_	1	5%	1 1	ratio	Product reuse	-	_	15%			
ial recycling	_	2	1%]		Material recycling	-	_	2	1%		
Other than recycling 22% 22% GHG Transportation 0.4 0.4 2.5 2.4 Table 26						Other than recycling	22%		22%			
		_									Table 26	
al recovery 1	12.1 9.8	24.6	22.1	GHG emissions in Table 30 × thermal recovery ratio	emissions	Thermal recovery	12.1	9.8	24.6	22.1	GHG emissions in Table 30 × thermal recovery ratio	
duct reuse		9.7	9.7	GHG emissions in Table 39 × product reuse ratio		Product reuse	-	_	9.7	9.7	GHG emissions in Table 39 × product reuse ratio	
ial recycling		9.6	9.2	GHG emissions in Table 44 × material recycling ratio		Material recycling	-	-	9.6	9.2	GHG emissions in Table 44 × material recycling ratio	
ineration	30 > recy			GHG emissions in Table 30 × ratio of other than recycling		Incineration	3.4	2.8	12.9	11.6	GHG emissions in Table 30 × ratio of other than recycling	
nal recovery -	-15.9 -15.2	-54.0	-52.3	GHG emission reduction in Table 31 × thermal recovery ratio	Emission reduction effects	Thermal recovery	-15.9	-15.2	-54.0	-52.3	GHG emission reduction in Table 31 × thermal recovery ratio	
duct reuse		-27.9	<u>-26.7</u>	GHG emission reduction in Table 40 × product reuse ratio		Product reuse	<u> </u>	-	-27.9	-26.8	GHG emission reduction in Table 40 × product reuse ratio	
Material recycling — — — — 14.8 GHG emission reduction in Table 45 × material recycling ratio						Material recycling	-	-	-14.9	-13.5	GHG emission reduction in Table 45 × material recycling ratio	
i ii	cycling sportation al recovery uct reuse al recycling neration al recovery uct reuse	2.8 Cycling Sportation 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.5	2.5 2.5	cycling cycling sportation 0.4 0.4 2.5 2.4 all recovery 12.1 9.8 24.6 22.1 uct reuse — 9.7 9.7 all recycling — 9.6 9.2 neration 3.4 2.8 12.9 11.6 all recovery -15.9 -15.2 -54.0 -52.3 uct reuse — -27.9 -26.7	Sportation 0.4 0.4 2.5 2.4 Table 26	sportation 0.4 0.4 2.5 2.4 Table 26 al recovery 12.1 9.8 24.6 22.1 GHG emissions in Table 30 × thermal recovery ratio uct reuse — 9.7 9.7 GHG emissions in Table 39 × product reuse ratio al recycling — 9.6 9.2 GHG emissions in Table 44 × material recycling ratio neration 3.4 2.8 12.9 11.6 GHG emissions in Table 30 × ratio of other than recycling ratio al recovery ratio al recovery -15.9 -15.2 -54.0 -52.3 GHG emission reduction in Table 31 × thermal recovery ratio uct reuse — -27.9 -26.7 GHG emission reduction in Table 40 × product reuse ratio al recycling — -14.8 -13.5 GHG emission reduction in Table 45 × material	recycling sportation 0.4 0.4 2.5 2.4 Table 26 al recovery 12.1 9.8 24.6 22.1 GHG emissions in Table 30 × thermal recovery ratio al recycling — 9.7 9.7 GHG emissions in Table 39 × product reuse ratio al recycling — 9.6 9.2 GHG emissions in Table 44 × material recycling ratio neration 3.4 2.8 12.9 11.6 GHG emissions in Table 30 × ratio of other than recycling all recovery ratio al recovery — 15.9 — 15.2 — 54.0 — 52.3 GHG emission reduction in Table 31 × thermal recovery ratio all recycling — — — 27.9 — 26.7 GHG emission reduction in Table 40 × product reuse ratio all recycling — — — 13.5 GHG emission reduction in Table 45 × material Material recycling Material recycling emission reduction in Table 45 × material	Thermal recovery 12.1 9.8 24.6 22.1 GHG emissions in Table 30 × thermal recovery ratio 9.6 9.2 GHG emissions in Table 30 × ratio of other than recycling all recovery -15.9 -15.2 -54.0 -52.3 GHG emission reduction in Table 31 × thermal recovery ratio -26.7 GHG emission reduction in Table 34 × material recycling recovery ratio -26.7 GHG emission reduction in Table 40 × product reuse -27.9 -26.7 GHG emission reduction in Table 40 × product reuse -27.9 -26.7 GHG emission reduction in Table 40 × product reuse ratio -27.9 -26.7 GHG emission reduction in Table 40 × product reuse ratio -27.9 -26.7 GHG emission reduction in Table 40 × product reuse ratio -27.9 -26.7 GHG emission reduction in Table 40 × product reuse ratio -27.9 -26.7 GHG emission reduction in Table 40 × product reuse ratio -27.9 -26.7 GHG emission reduction in Table 45 × material -27.9 -26.7 -27.9 -26.7 -27.9 -27.	Table 26 Sportation 0.4 0.4 2.5 2.4 Table 26 Sportation 0.4 0.4 2.5 2.4 Table 26 Sportation 0.4 0.4 2.5 2.4 Table 26 Sportation 0.4	Table 26 Sportation 0.4 0.4 2.5 2.4 Table 26 30 × thermal recovery 12.1 9.8 24.6 30 × thermal recovery 12.1 9.8 24.6 30 × thermal recovery 12.1 9.8 24.6	Table 26 Sportation 0.4 0.4 2.5 2.4 Table 26 Sportation 0.4 0.4 2.5 2.4 Table 26 Sportation 0.4 0.4 2.5 2.4 Sportation 0.4 0.4 0.4 2.5 2.4 Sportation 0.4 0.	

14		Table 47: Life	cycle GHG	emissions ((details)	(Unit kr	-00 altra)			Table 47: Life	cycle GHG	emissions ((details)		
Raw	1		cycle GHG	emissions ((details)	(Unit: kr	.00 -4			Table 47. Life	cycle GnG	emissions ((details)		
Raw	1	Class				(orne no	pCO ₂ e/tyre)	i r					***************************************	(Unit: kg	CO ₂ e/tyre)
Raw				PC		Т	В			Class		PC		Т	
Raw			Convent ional tyre	Fuel- efficient tyre A	Fuel- efficient tyre B	Convent ional tyre	Fuel- efficient tyre				Convent ional tyre	Fuel- efficient tyre A	Fuel- efficient tyre B	Convent ional tyre	Fuel- efficient tyre
proce	v material curement	Raw material production	<u>26.1</u>	23		137.3	129.2		Raw material procurement stage	Raw material production	26.3	23.8		137.3	129.3
s	stage	Raw material transportation	1.1	1.1 9.4 9.3			stage	Raw material transportation		1.1		9.4	9.3		
100.10	oduction stage	Production	6.9	6.	.6	39.5	39.8		Production stage	Production	6.9	6.6		39.5	39.8
	stribution stage	Transportation	0.9	0.	.9	5.8	5.7	Distribution Transportation stage		0.9	0.9		5.8	5.7	
Use	se stage	Use	250.5	212.3	155.1	2,326.9	1,447.9		Use stage	Use	250.5	212.3 155.1		2,326.9	1,447.9
7.4	Φ.	Transportation	0.4	0.	.4	2.5	2.4		- a	Transportation	0.4	0.4		2.5	2.4
End of life and	stag ons	Thermal recovery	12.1	9.	.8	24.6	22.1		stag stag	Thermal recovery	12.1	9	.8	24.6	22.1
1 2 2	cycling star	Product reuse	_	-	- 1	9.7	9.7		End of life and recycling stage Emissions	Product reuse	_	_		9.7	9.7
200	E G	Material recycling	-	-	:	9.6	9.2		nd o	Material recycling	_	-	_	9.6	9.2
ш е	2	Simple incineration	3.4	2.	.8	12.9	11.6		ш Б	Simple incineration	3.4	2	.8	12.9	11.6
	Total G	HG emissions	301.4	257.5	200.3	2,578.3	1,686.9		Total	GHG emissions	<u>301.5</u>	<u>257.6</u>	200.4	2,578.4	<u>1,687.0</u>
2 9	a de	Thermal recovery	-15.9	-15.2		-54.0	-52.3		g g	Thermal recovery	-15.9	.9 -15.2		-54.0	-52.3
filfe ar	Reduction effects	Product reuse	-	-	-	-27.9	<u>-26.7</u>		nd of life an cycling stag	Product reuse	_	_		-27.9	<u>-26.8</u>
End of life and recycling stage	Red	Material recycling	-	-	-	<u>-14.8</u>	-13.5		End of life and recycling stage Reduction effects	Material recycling	_	-	-	<u>-14.9</u>	-13.5
(0		GHG emissions reduction effects)	<u>285.5</u>	242.3	<u>185.1</u>	2,481.5	1.594.3			e GHG emissions ng reduction effects)	285.6	<u>242.5</u>	<u>185.2</u>	2,481.6	<u>1,594.4</u>

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P45			-	Table 48:	Lifecycle	GHG e	missions	(by stage)		± 1:000	a (hura)			1	Table 48:	Lifecycle	GHG e	missions ((by stage)		it: kgCO ₂ e	e/tvre)
	Class				PC					it: kgCO ₂ B	e/tyre)	Class			F	PC .				T		artyre)
	0,000	Convent	tional tyre	_	cient tyre A	Fuel-effic	cient tyre B	Convent		_	cient tyre	***************************************	Conver	ntional tyre	_	217	Fuel-effi	cient tyre B	Conventi	ional tyre	Fuel-effic	cient tyre
	Raw material procurement stage	27.3	9.6%	24.8	10.2%	24.8	13,4%	146.6	5.9%	138.5	8.7%	Raw material procurement stage	27.4	9.6%	24.9	10.3%	24.9	13.4%	148.7	5.9%	138.6	8.7%
	Production stage	6.9	2.4%	6.6	2.7%	6.6	3.6%	39.5	1.6%	39.8	2.5%	Production stage	6.9	2.4%	6.6	2.7%	6.6	3.5%	39.5	1.6%	39.8	2.5%
	Distribution stage	0.9	0.3%	0.9	0.4%	0.9	0.5%	5.8	0.2%	5.7	0.4%	Distribution stage	0.9	0.3%	0.9	0.4%	0.9	0.5%	5.8	0.2%	5.7	0.4%
	Use stage	250.5	87.7%	212.3	87.6%	155.1	83.8%	2,326.9	93.8%	1,447.9	90.8%	Use stage	250.5	87.7%	212.3	87.6%	155.1	<u>83.7%</u>	2,326.9	93.8%	1,447.9	90.8%
	End of life and recycling stage	0.0	0.0%	-2.2	-0.9%	-2.2	-1.2%	-37.4	-1.5%	-37.5	-2.4%	End of life and recycling stage	0.0	0.0%	-2.2	-0.9%	-2.2	-1.2%	-37.4	-1.5%	-37.5	-2.4%
	Emissions	15.9	5.6%	13.0	5.4%	13.0	7.0%	59.4	2.4%	55.0	3.5%	Emissions	15.9	5.6%	13.0	5.4%	13.0	7.0%	59.4	2.4%	55.0	3.5%
	Emission reduction effects	-15.9	-5.6%	-15.2	-6.3%	-15.2	-8.2%	-96.8	-3.9%	-92.6	-5.8%	Emission reduction effects	-15.9	-5.6%	-15.2	-6.3%	-15.2	-8.2%	-96.8	-3.9%	-92.6	-5.8%
	Total	285.5	100.0%	242.3	100.0%	185.1	100.0%	2,481.5	100.0%	1,594.3	100.0%	Total	285.6	100.0%	242.5	100.0%	185.2	100.0%	2,481.6	100.0%	1,594.4	100.0%

