Process	**Value (per 1 ton of waste)**	**Ecoinvent dataset and Assumption** (Reinhard et al., 2016)
Input Landfill		
Plastic mixture	468,6 kg	Overall degradability over 100 years 1%; Short-term emissions to air via landfill gas incineration and landfill leachate. Burdens from treatment of short-term leachate (0-100a) in wastewater treatment plant. Long-term emissions from landfill to groundwater. *Treatment of waste plastic, mixture, sanitary landfill – (RoW)*
Glass	148,7 kg	Overall degradability of waste during 100 years: 0%. short-term emissions to air via landfill gas and landfill leachate. *Treatment of waste glass, sanitary landfill – (GLO)*
Paperboard	104,2 kg	Overall degradability of waste during 100 years: 32.44%; short-term emissions to air via landfill gas incineration and landfill leachate. Burdens from treatment of short-term leachate (0-100a) in wastewater treatment. Long-term emissions from landfill to groundwater. *Treatment of waste paperboard, sanitary landfill – (RoW)*
Aluminum	13,9 kg	Overall degradability of waste during 100 years: 50%; short-term emissions to air via landfill gas incineration and landfill leachate. Burdens from treatment of short-term leachate (0-100a) in wastewater treatment plant. Long-term emissions from landfill to groundwater. Recultivation and monitoring for 150 years after closure. Treatment of waste aluminum, sanitary landfill – (RoW)
Scrap steel	150,5 kg	Scrap steel deposition on inert material landfill. No direct emissions from inert material landfill (leachate) are inventoried as deemed negligible. Module contains only exchanges to process-specific burdens (energy, land use) and infrastructure. landfill with renaturation after closure. Treatment of scrap steel, inert material landfill – (Europe without Switzerland)
Wood waste	86,9 kg	Overall degradability of waste during 100 years: 1.5%; short-term emissions to air via landfill gas incineration and landfill leachate. Burdens from treatment of short-term leachate (0-100a) in wastewater treatment. Long-term emissions from landfill to groundwater. Treatment of leachate in municipal wastewater treatment plant. Recultivation and monitoring for 150 years after closure. Treatment of waste wood, untreated, sanitary landfill – (RoW)

Textile waste	27,1 kg		Treatment of waste yarn and textile, unsanitary landfill – (RoW)
Inert material waste	381,6 kg		Treatment of inert waste, sanitary landfill – (Europe without Switzerland)
Input Incineration (without considering the inert fraction)			
Waste	1 ton		Mixture composition as reported in chapter 4.1
Electrical energy	198,3 kWh		The amount of electricity needed for the whole plant, ca. 14% electrical energy produced
Process elements	Process-specific burdens, residual material landfill	309,7 kg	Mass-specific expenditures required for landfilling of incineration residues
	Cement	62,2 kg	Cement required for solidification of landfilled residual material
Inert material waste disposal to landfill			
Inert material waste	381,6 kg	Treatment of inert waste, sanitary landfill – Europe without Switzerland	
Electricity	0,025 kWh	Electricity required for wastewater treatment	
Heat	0,03 MJ	Electricity required for wastewater treatment	
Electrical energy	1416,3 kWh	Electricity produced from waste valorisation of Gioia Tauro plant; net electrical efficiency = 0,2889; Low Heating Value (LHV) of waste= 17,7 MJ/kg* *means that 1 kg of waste releases 17.7 megajoules of energy when burned, excluding the energy lost as water vapor.	