Annex 1 Table of reference flows

Scenario 1 Virgin filament System:

Phase	Process	Transport (km)	Transport Type	weight (kg)	weight (t)	t*km
Transport to the filament producer	Plant-Port	756	transport, freight, lorry >32 metric ton, EURO6	1	0,001	0,756
	Port-Port	5.774	Container ship	1	0,001	5,774326
	Port-Plant	558	transport, freight, lorry >32 metric ton, EURO6	1	0,001	0,558

Phase	Machine	Process	Flux	Rate used (kg/h)	Puissance (kw)	Temps d'utilisation (h)	Energie Consomation (kwh)
Filament Product	PEEK 3d Printer Filament Production Line	Extrusion	électricité	20	15	0,05	0,75
				25	15	0,04	0,6

Phase	Process	Transport (km)	Transport Type	weight (kg)	weight (t)	t*km
Filament Transport to the Client	Plant-Client	280	small cargo vehicle	1	0,001	0,28

Scenario 2 Virgin filament System:

Phase	Process	Transport (km)	Transport Type	weight (kg)	weight (t)	t*km
Transport to the filament producer	Plant-Plan	645	transport, freight, lorry >32 metric ton, EURO6	2,1	0,0021	1,3545

Phase	Machine	Process	Flux	Rate used (kg/h)	Puissance (kw)	Temps d'utilisation (h)	Energie Consomation (kwh)
Filament Product	PEEK 3d Printer Filament Production Line	Extrusion	électricité	20	15	0,05	0,75
				25	15	0,04	0,6

Phase	Process	Transport (km)	Transport Type	weight (kg)	weight (t)	t*km
filament Transport to the client	Plant-Airport	5	transport, freight, lorry >32 metric ton, EURO6	2	0,002	0,01
	Airport-Airport	6.971	Airplane	2	0,002	13,942
	Airport-client	152	Cargo truck	2	0,002	0,304

Scenario 3 Recycled filament system:

Phase	Machine	Process	Flow	Power (kw)	Time of Use (h)		Energie Consomation (kwh)	
					Min	Max	Min	Max
Production Pellets	Retsch SM 300	Size reduction	Electricity	3	0,05	0,08	0,15	0,24
Filament Product	Nostek Xcalibur	Extrusion	Electricity	1,6	0,3	1	0,48	1,6

Phase	Transport(km)	Process	Transport type	Weight (fonctional unit) (kg)	Weigth (t)	t*km
Collection/ Delivey	25,52	Recovery Transport	Light Commercial Vehicle	1	0,001	0,02552
		Produit Transport		1	0,001	0,02552

Transport route for the recycling scenarios: