



Circulair Onderzoek achter de Auping Evolve Matras

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Geert Doorlag

Werkt bij Auping sinds 2009 als onderzoeker. Focus thema's zijn Duurzaamheid en Slaap.



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Geert Doorlag



Sinds 1888 opgericht door Johannes Auping

*"Manufacturing in a fair
balance of **durable quality**
and fair prices."*



Auping rust de wereld uit

Want een uitgeruste wereld
is een betere wereld, een
mooiere wereld

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Earthrise

William Anders, 1968



What a Waste!

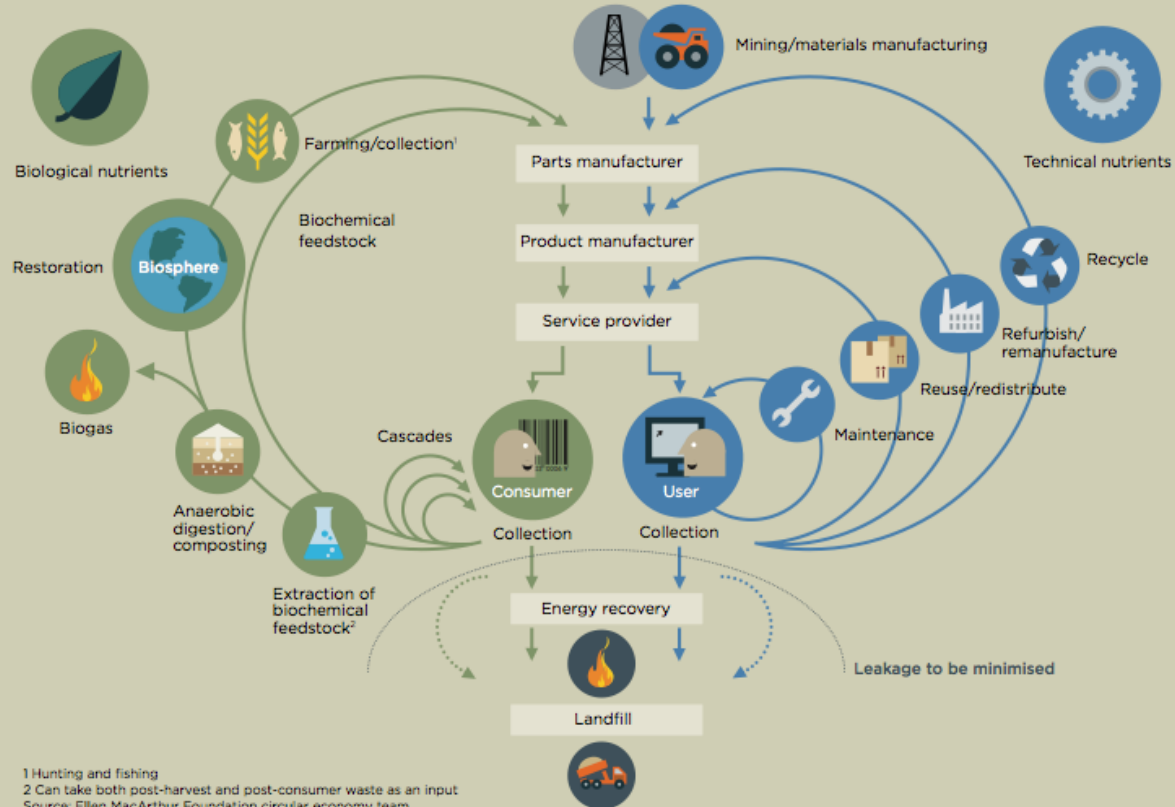
Elk Jaar worden er in Europa meer dan **40 miljoen matrassen** weggegooid, het merendeel wordt **verbrand**.

Wanneer je al deze matrassen achter elkaar legt, krijg je een rij die 2 keer de aarde omcirkeld



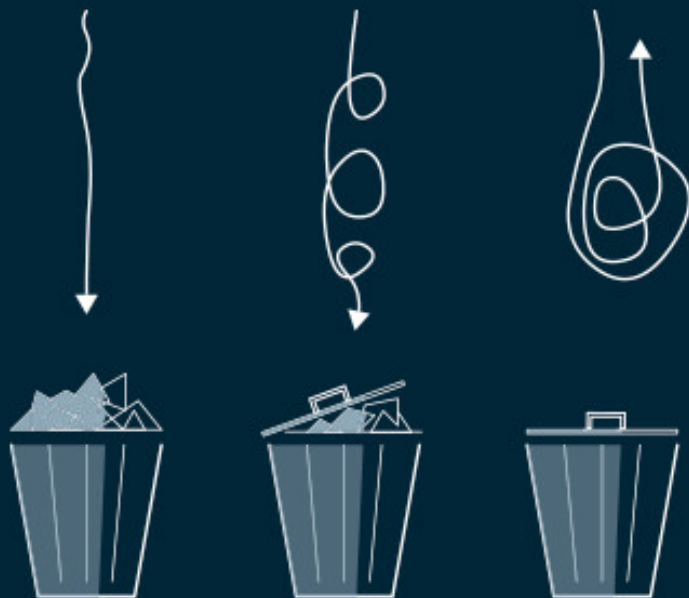
Circulariteit

As defined by the Ellen Mc Arthur Foundation



Circulariteit

voor dummies

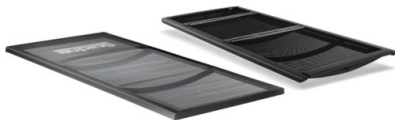


Nooit meer wakker liggen van moeilijke definities.

2011



2012



2013



Cradle to Cradle

Inzichten in welke grondstoffen wel en niet passen bij de strategie.

0		31/18				0,00%						
						>95%	Polyethylene Terephthalate (PET)	25038-59-9	38838-2	B	if catalyst and additive are listed; Polymer can be melted and re-extruded. Main indication of problem to human health due from pure polymer	
				Colorant		0-1,5%	titanium dioxide	13463-67-7	80	C	inhalative carcinogen (IARC 2B), hints for mutagenicity (depending on particle size) and weak developmental toxicity, risk from dust inhalation is acceptable if exposure to workers is adequate controlled	
				Finishing		<2,5%	011		203658	C	irritation, degradability, aquatic toxicity	
				Finishing		<2,5%	012		203659	C	irritation, degradability, aquatic toxicity	
1	Müller Text. Slavakia zra [4527]	MB- 3D-BREISEL	759100 / 759110	3D prozura-distribution 2cm shoulder area of 1cm shoulder area		100,00%			201733	C	may contain carcinogenic antimony, Titan dioxide has an inhalative hazard potential.	
						>95%	Polyethylene Terephthalate (PET)	25038-59-9	38838-2	B	if catalyst and additive are listed; Polymer can be melted and re-extruded. Main indication of problem to human health due from pure polymer	
				Pigment		0-1,5%	titanium dioxide	13463-67-7	80	C	inhalative carcinogen (IARC 2B), hints for mutagenicity (depending on particle size) and weak developmental toxicity, risk from dust inhalation is acceptable if exposure to workers is adequate controlled	
						<2,5%	013		203660	C	irritation, degradability, aquatic toxicity	
2	Müller Text. Slavakia zra [4527]	MB- 3D-BREISEL	7460510	3D Knittingquark 6,5 mm.		100,00%			200225	C	Catalyst of PET has to be clarified for antimony usage. Titanium dioxide has an inhalative hazard potential. Contains critical Spin all supplier is aware of	
						60,00%	Polypropylene (PP)	9003-07-0	72642-2	B	if additive and pigment are known and listed explicit	
						39,50%	Polyethylene Terephthalate (PET)	25038-59-9	38838-2	B	if catalyst and additive are listed; Polymer can be melted and re-extruded. Main indication of problem to human health due from pure polymer	
						0,50%	Starch	9005-25-8	69099	B	make sure no GMO source is used	
3	Juritec Kaatrhouvel B.V. [4554]	M0-RITS GAREN FOURNITUR	7604680	Koperband 32mm gray		100,00%			201688	C	may contain carcinogenic antimony	
						60,00%	Polypropylene (PP)	9003-07-0	72642-2	B	if additive and pigment are known and listed explicit	
						39,50%	Polyethylene Terephthalate (PET)	25038-59-9	38838-2	B	if catalyst and additive are listed; Polymer can be melted and re-extruded. Main indication of problem to human health due from pure polymer	



Auping Take Back System





Auping Take Back System



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Alleen Polyester Textiel, Stalen Veren en
Click-unclick **niags**® adhesive





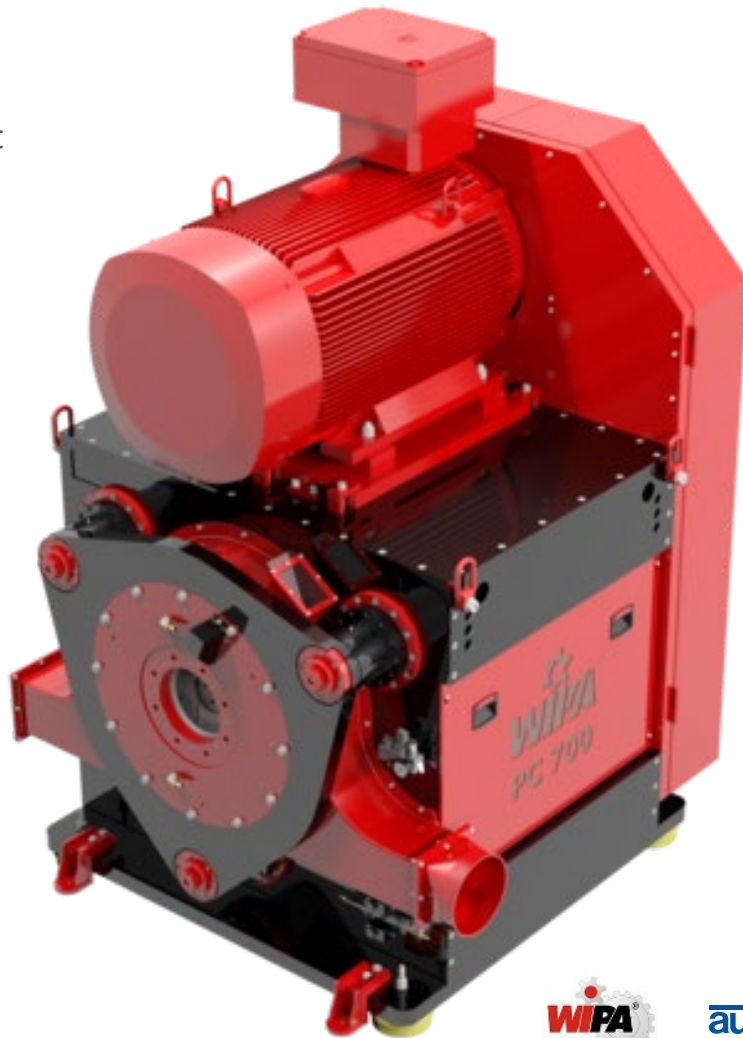
Circular Award Business 2019

"Dit product vinkt alle vakjes af van de transitie die we voor ogen hebben... makkelijk repareerbaar en volledig recyclebaar"



Plast-compacteren

TRL 10, efficiënt proces, onbekende polymeerkwaliteit



Vervezelen

Veel materialen zijn te stug, lijmresten zorgen voor versmering van de machines

Mechanische Recycling & Poly-Condenseren

Kwaliteit naar kwaliteit, beschikbare technologie, kosteneffectief (TRL 9)



Starlinger



Mechanical recycling &
polycondensation

edelgroup®
since 1918



Spinning & Carpet production

Mechanische Recycling & Poly-Condenseren

Kwaliteit naar kwaliteit, beschikbare technologie, kosteneffectief (TRL 9)



SENBIS
POLYMER INNOVATIONS

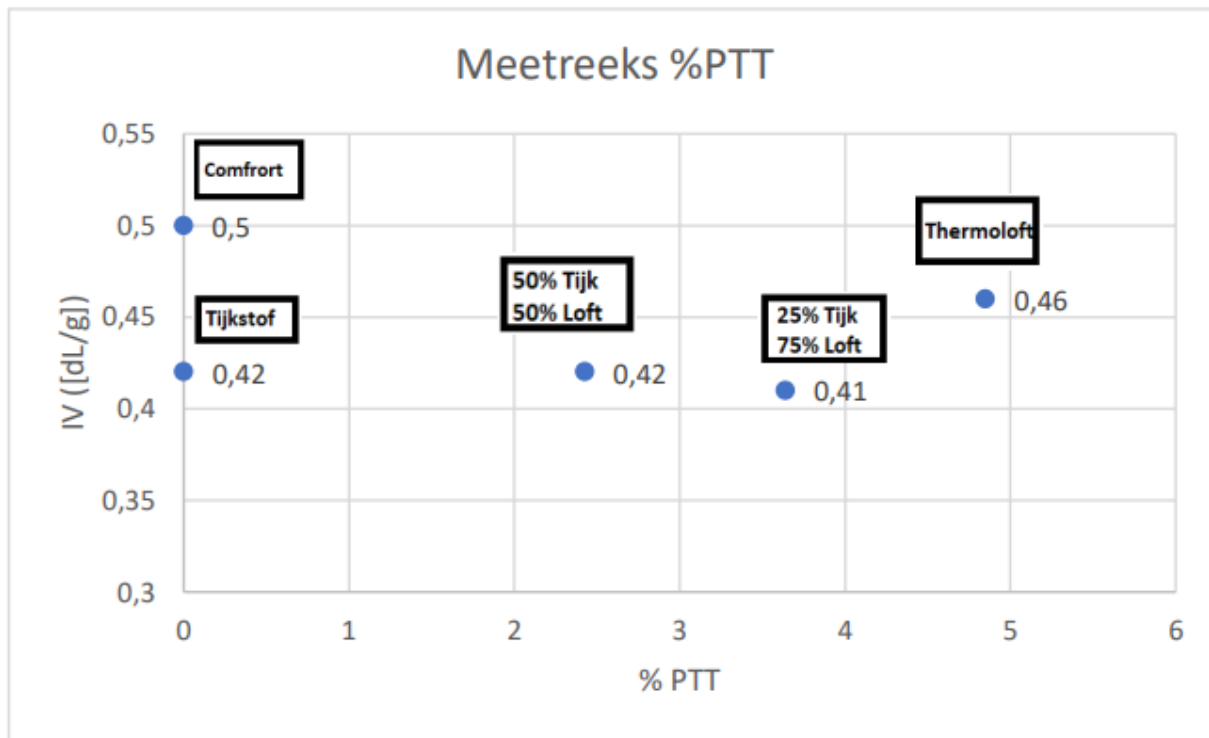
TWD Fibres
SPINNING THE FUTURE

Innofa
INNOVATED FABRICS

auping

Impact analyse van onzuiverheden op polymeer kwaliteit

Impact van te verwachten onzuiverheden op de kwaliteit van het polymeer is minimaal





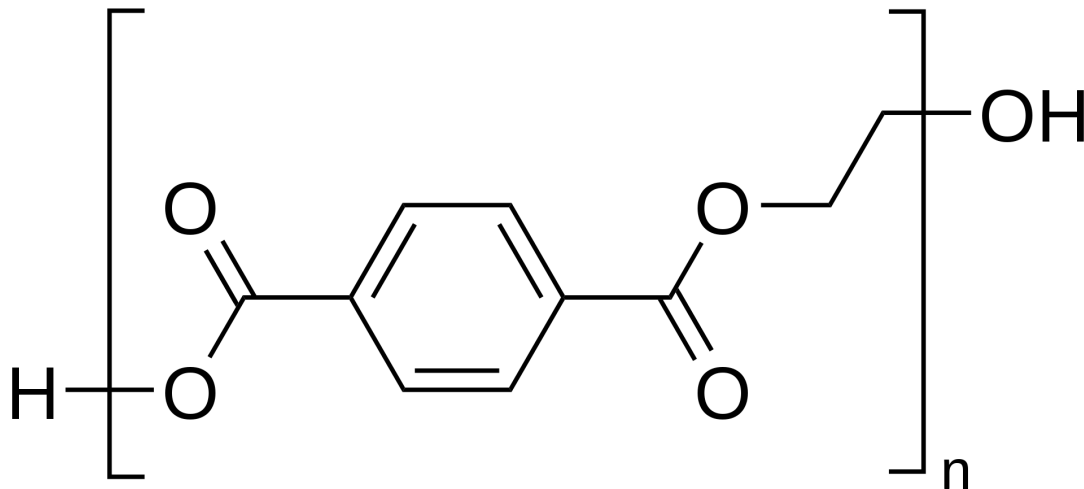
Sheltersuit

Hergebruik van onderdelen uit de circulaire matras in slaapzakken voor daklozen



Chemische Recycling

Virgin kwaliteit, Ontkleuren, >95% efficiënt, lab schaal (TRL 2-3)



A man with a beard and mustache is sitting on a dark-colored bed, smiling and raising both arms in a celebratory gesture. He is wearing a light-colored button-down shirt and dark trousers. The room is dimly lit with a strong blue color cast. To the left of the bed is a small bedside table with a glowing light bulb. To the right is a small chair with an alarm clock on it. A dark rug is on the floor in front of the bed. The word 'auping' is overlaid in the center in a white, lowercase, sans-serif font, with a horizontal line above the 'a' and 'u'.