

UNIVERSITEIT iYUNIVESITHI STELLENBOSCH UNIVERSITY



forward together saam vorentoe masiye phambili

STELLENBOSCH UNIVERSITY MATERIALS STANDARDS AND SPECIFICATIONS DOCUMENT





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The Standards and Specifications document has been compiled to assist Stellenbosch University (SU) with addressing a priority list of items to focus on in the process of procurement of goods. Although this is mainly focussed on SU vendors, it also applies to Admistration, Faculties and events.



TOGETHER WE CAN SAVE OUR PLANET

I. GUIDING PRINCIPLES

It is necessary **CONSIDER** the context and understand what is required. It will be necessary to consider the materials management system operated on campus and what can and cannot be accepted. Therefore, the first consideration should be "can I provide a reusable / refillable option?"

Should you be selecting a material for single-use or to package a product, realise that you have a **CHOICE** and you should request suppliers provide you with a mono-material and not multiple-layered materials, and again consider the system in which these materials will need to operate in i.e. is there a bin in which it will be disposed to avoid the landfill.

SIMPLIFY packaging - perhaps have fewer options, making it simpler and easier to understand.

It is important to **COLLABORATE** on material choices – perhaps to obtain better pricing too as a benefit. This does not mean price fixing or sharing sensitive market or business information. Perhaps a materials or packaging working group where you can bounce ideas off each other or ask a question about a new supplier who is trying to sell you the next "wonder" packaging. It also ensures ease of communication to consumers/students.

It will be important to be part of the system and **PARTICIPATE**. Only then will results be seen. If there are vendors that are not participating, participation would need to be encouraged.

A major contribution to the ongoing success of a project is feedback and therefore the University should **MONITOR** the system and provide feedback, and this should happen both ways – University to vendors, staff, and students and vice versa.

In summary:

- Consider re-use and refill systems as the first or most-preferred choice.
- · Avoid mixing of materials where possible.
- Where packaging comprises of different material types, ensure that the material components can be easily separated.
- Ensure that material choices fit into the SU waste management system i.e. select materials that are able to be recycled/ composted within the SU waste management system.
- Avoid excessive packaging on products whenever possible to reduce the amount of waste produced.
- Avoid materials that are associated with environmental pollution.
- Explore take-back options.

This Standard and Specifications document provides a table to guide selection and includes a simple colour coded system will assist to draw attention to items that are problematic or banned. Explanations are provided where necessary. Should you require additional background information, please refer to the:

"Stellenbosch University Zero Waste to Landfill and Waste Reduction Strategy: Packaging Materials Reference Document, 2020"

2. SUPPLIER DECLARATION

Suppliers of packaged items or packaging (i.e. bought after 1 June 2021) are required to complete the supplier declaration form. The packaged product/packaging/material may only be procured if a minimum of **3** criteria are selected as **Yes**.

	SU Zero Waste to Landfill Journey SUPPLIER DECLARATION		
Supplier Name			
Packaging Item/s			
	Criteria	×	
		Yes	
I. 7	South African/Locally manufactured	No	
		n/a	
$\mathbf{\Lambda}$		Yes	
2. 2	Pasyelabla	No	
	Kecyclable	n/a	
	or	Yes	
Ě	Compostable	No	
		n/a	
		Yes	
	Certified	No	
M_	i.e. Specific to compostable packaging products		
		Yes	
4.	Labelled	No	
V	i.e. packaging is clearly labelled to indicate if it is compostable or recyclable		
Signature:	Date:		
Name [.]			
- 1401110-			
	Additional information or motivation if products do not meet above-mentioned criteria		

3. STANDARDS AND SPECIFICATIONS

The Standards and Specifications for packaging items are presented in the tables below. Please note that the list of suppliers is not exhaustive and other suppliers may be used provided they meet the criteria and have completed the declaration

Please note the following:

- Packaging Items have been prioritised for action as either High, Medium or Low Priority.
- Within each packaging item/category, replacement options have been ranked in order of preference as follows:
 Preferred
 - Least preferred
 - $\circ~$ Least preferred but allowed with conditions
 - $\circ~$ Not Allowed
- The disposal method has been colour-coded in accordance with the SU bin signage.

Take-away containers/clamshells

PROBLEMATIC PACKAGING ITEM: POLYSTYRENE (PS) Polystyrene will be <u>banned</u> from all SU facilities from 01 June 2021¹

Priority:	нідн	Concern/Issue:	Not recyclable Environmental p	ollutant
Replacement Options	Composition / Material & Notes	Certifications	SU Disposal Method	Potential Suppliers
	Re-usable containers of various materials – food safe	BPA Free (if plastic)	No disposal required	E.g. Tupperware, stainless steel bento/lunch box
	Kraft (paper board) Container with PLA liner	FSC Compostable	Compost / Food Waste	e.g. https://www.capecup.co.za/ https://ecopack.co.za https://naturepack.co.za
	Aluminium trays (with Kraft/paper lid)	None required	Recycling	Various
NOT ALLOWED	Sugar Cane Pulp or Bagasse	European: EN13432:2000- Global: ISO18606:2013 – American: ASTMD6400:2012	NOT ALLOWED	Despite the claims that these products offer, the current composting facilities in Stellenbosch are not able to process these. They also cannot be recycled. Many of these are also still imported, In addition, some contain long-chain PFAs which are linked to several adverse health effects.
NOT ALLOWED	Kraft (paper board) Container with PE liner	n/a	NOT ALLOWED	The PE liner used does not allow this packaging to be composted.

I All new packaging ordered from 01 June 2021. Old stock can be used until depeted

Drinking straws								
PROBLEMATIC ITEM: PLASTIC STRAWS								
Priority:	HIGH Concern/Issue:		Not recycle Concern/Issue: Environmental po (material leak;					
Replacement Option	Composition/ Material & Notes	Certifications	SU Disposal Method	Potential Suppliers				
None _ no straw required	Behavioural messaging and incentive, i.e. charge a fee to discourage unnecessary use			Include as a line item on the till slip and payment system.				
	Preferred Option: Paper Straws (unwrapped is preferable)	FSC Certified	Compost / Food Waste	e.g. https://eco- pack.co.za https://biostraws. co.za/ https://www. merrypak.co.za				
	Plant-based protein edible straw		No disposal required (edible) or Compost / Food Waste	Eat Me Straws (https://www. thesouthafrican. com/lifestyle/ eat-me-straws- edible-straws-lei- la-siljeur/)				
	Wheat straw		Compost / Food waste	e.g. https://pad- dystraw.co.za				
	Polylactic Acid (PLA) – biodegradable in industrial/commercial compost facilities	South African: SANS 17088:2020 European: EN13432:2000 EN14995:2006 Global: ISO18606:2013 ISO17088:2012 – American: ASTMD6400:2012 Australian: AS4736:2006	NOT ALLOWED	Although compostable, these items are imported, should locally manufac- tured options be available, this can be reconsidered.				

Cutlony								
PROBLEMATIC ITEM: SINGLE USE CUTLERY								
Priority	Priority HIGH Concern/ Not recycled Issue: Environmental pollutant (material leakage)							
Replacement Options	Composition/ Material & Notes		Certifications	SU Disposal Method	Potential Suppliers			
	Reusable cutlery		None required	No disposal required	Numerous.			
	Wood		FSC Certified	Compost / Food waste	Numerous			
Note: The intention here is to not provide single use cutlery on site. Cutlery must be reusable.								

Coffee cups								
PROBLEMATIC ITEM: SINGLE USE COFFEE CUPS								
Priority:	HIGH Concern	High-use Iten	n, not always recycled					
Replacement Options	Composition / Material & Notes	Certifications	SU Disposal Method	Potential Suppliers				
	Reusable coffee cups combined with behavioural incentives	BPA free (if plastic)	No disposal required	Numerous as these can be glass, ceramic, plastic or metal				
Le COD minimum.	Compostable Coffee Cup (Kraft with PLA lining)	European: EN13432:2000 EN14995:2006 Global: ISO18606:2013 ISO17088:2012 – American: ASTMD6400:2012 Australian: AS4736:2006	Compost / Food waste	Compostable coffee cups MUST be locally made https://ecopack.co.za https://naturepack.co.za http://www.capecup.co.za				
	Kraft Cup with PE ² lining	Recyclable	NOT ALLOWED	Although, "recyclable", there is currently limited recycling capacity for this in SA with only one plant in Gauteng. The plastic lining also compromises the recyclability of the cup. These cups cannot be composted.				

2 Polyethylene - polyolefin plastic

			Coffee and lide			
Priority:	HIGH Concern/Issue: Risks inclu		Risks inclunion not eas	High-use item High-use item Ie that compostable and recyclable are ily distinguishable from each other		
Replacement Options	Composition & No	n/Material tes	Certificat	ions	SU Disposal Method	Potential Suppliers
None – no lid required	Behavio messagir incentive, i. a fee to dis unnecess	oural ng and e. charge scourage ary use				Include as a line item on the till slip and payment system.
	Moulded fibre coffee cup lid e.g. such as those used by VidaE		Locally Made		Compost / Food waste	MUST be locally made https://ecopack.co.za https://naturepack. co.za
NOT ALLOWED	Recyclable coffee cup lid – made from Polystyrene		RECYCLABLE Lids are marked with the plastic identification code (6) and should state "Recyclable"		NOT ALLOWED	Although recyclable, it is a problematic material and recycling is limited.
NOT ALLOWED	Compostable Coffee Cup Lid - PLA		South Afr SANS 1708 Europe EN13432: EN14995: Globa ISO18606: ISO17088:2 Americ ASTMD6400 Australi AS4736:2	ican: 3:2020 an: 2000 2006 I: 2013 012 – an: 0:2012 an: 006	NOT ALLOWED	Although compostable, these items are imported. Until such time that these can be manufactured locally, these should be discouraged.

Smoothie cups									
	PROBLEMATIC ITEM: SINGLE USE SMOOTHIE CUPS								
Priority:	HIGH	Concern/Issue:	High-use item PET smoothie cups are r Risks include that compo distinguishable from each	not recycled. ostable and recyc n other.	lable cups are not easily				
Replacement Options	Composition/№	1aterial & Notes	Certifications	SU Disposal Method	Potential Suppliers				
Preferred	Compostabl (Kraft (paper)	e Drinks Cup with PLA lining)	Labelled Compostable European: EN13432:2000 EN14995:2006 Global: ISO18606:2013 ISO17088:2012 – American: ASTMD6400:2012 Australian: AS4736:2006	Compost / Food waste	https://ecopack.co.za https://naturepack.co.za MUST BE LOCALLY MADE				
Least Preferred but allowed with conditions	Recyclable sr made from F (Resin co	noothie cup – Polypropylene ode 5 - PP)	RECYCLABLE Least Preferred but allowed with condi- tions	Recycling	https://www.capecup. co.za/ MUST BE LOCALLY MADE				
Least Preferred but allowed with conditions	Recyclable smoothie cup – made from PET (Resin code I)		RECYCLABLE Least Preferred but allowed with condi- tions	Recycling	https://www.capecup. co.za/ MUST BE LOCALLY MADE				
NOT ALLOWED	Compostable smoothie cup labelled th	/Biodegradable - PLA – Clearly hat it is PLA	South African: SANS 17088:2020 European: EN13432:2000 EN14995:2006 Global: ISO18606:2013 ISO17088:2012 – American: ASTMD6400:2012 Australian: AS4736:2006	NOT ALLOWED	Although compostable, these items are imported, should locally manufactured options be available, this can be reconsidered. It is also easily confused with PP cups.				

		Smoothie cup lids						
PROBLEMATIC ITEM: SINGLE USE SMOOTHIE CUP LIDS								
Priority	HIGH	Concern/Issue:	High-use item PET smoothie cup lid Risks include that cor lids are not easily dist other.	ls are not recycled. mpostable and recyclable tinguishable from each				
Replacement Options	Composition/Material & Notes	Certifications	SU Disposal Method	Potential Suppliers				
None _ no lid required	Behavioural messag- ing and incentive, i.e. charge a fee to discourage unneces- sary use			Include as a line item on the till slip and pay- ment system.				
Preferred	Moulded fibre lid for smoothie cups e.g. such as those used by Vida e Caffe for coffee cups	Locally Made	Compost / Food waste	MUST BE LOCALLY MADE https://ecopack.co.za https://naturepack.co.za				
Least Preferred but allowed with conditions	Recyclable smoothie cup lid – made from Polypropylene (Resin code 5 - PP)	RECYCLABLE ONLY ALLOWED IF LABELLED AS RECYCLED	Recycling	https://www.capecup. co.za/				
NOT ALLOWED	Recyclable cup lid – made from Polystyrene	RECYCLABLE Lids must be marked with the plastic iden- tification code (6) and should state "Recyclable"	NOT ALLOWED	https://ecopack.co.za				
Control and	Compostable smoothie cup lid – PLA – Clearly labelled that it is PLA or 7 (other)	South African: SANS 17088:2020 European: EN13432:2000 EN14995:2006 Global: ISO18606:2013 ISO17088:2012 – American: ASTMD6400:2012 Australian: AS4736:2006	NOT ALLOWED	PLA products are imported. Although compostable, these items are imported. Until such time that these can be manufactured locally, these should be discouraged.				

	Cold drink & water bottles							
PROBLEMATIC ITEM: SINGLE USE BEVERAGE BOTTLES								
Priority:	Priority: MEDIUM Concern/Issue: High-use item. Limited re							
Replacement Options	Composition/ Material & Notes	Certifications	SU Disposal Method	Potential Suppliers				
Preferred	Returnable glass / plastic (PET) bever- age bottles.	None required	No disposal required (deposit bottles to be returned to store)	E.g. Coca-Cola				
	Re-usable beverage bottles	None required	No disposal required unless broken/damaged – then Recycling	Numerous as the reusable beverage bottles could be glass, plastic or metal E.g. Consol Glass				
Least preferred \downarrow	Clear Plastic PET bottles are preferable over coloured plastic PET bottles. Coloured PET bottles are not widely recycled.	Recyclable	Recycling	Select glass rather than Plastic for items which are only in coloured bottles for food safety and preservation e.g. ginger beer				

	С	arrier bag								
PI	PROBLEMATIC ITEM: SINGLE USE PLASTIC CARRIER BAGS									
Priority:	Priority: MEDIUM Concern/ Not rec									
Replacement Options	Composition/Material & Notes	Certifications	SU Disposal Method	Potential Suppliers						
Preferred	Reusable cotton bags	Labelled as 100% cotton	No disposal required and can be repaired if it breaks	http://www. silvercube. co.za						
	Paper bag	FSC	Recycling	https://www. merrypak.co.za						
NOT ALLOWED	PET / plastic fabric bags3	100% recycled material	Waste/landfill	Whilst this bag is made from recycled fibre from PET beverage bottles, the bag itself cannot be recycled and if it breaks will be disposed of at landfill.						

³ https://www.bulletinbag.com/blog/faqs/reusable-bag-materials-comparison-guide/

Barrier bags									
PROBLEMATIC ITEM: SINGLE USE THIN FILM BARRIER BAGS – usually made from Low-Density Polyethylene (LDPE)									
Priority: HIGH Concern/Issue: Not reused or recycled									
Replacement Options	Composition/ Material & Not	Certifications	SU Disposal Method	Potential Suppliers					
Reusable bags	Reusable cottor nylon mesh baş	s None	No disposal required, can be mended and washed	Many suppliers now. Many Retailers offer the purchase of these bags.					

Secondary or tertiary bulk packaging							
PROBLEMATIC ITEM: SINGLE USE CARDBOARD BOXES							
Priority:	MEDIUM	Cc	oncern/Issue:			High volume	
Replacement Options	Composition Material & Not	/ .es	Certifications		SU Disposal Method	Potential Suppliers	
	Collapsible an returnable cra system	d te	None required	1	No disposal required	https://www.thepackagingware- house.co.za	

Multi-layered packaging						
PROBLEMATIC ITEM: CARDBOARD/PLASTIC/ALUMINIUM COMBINATION PACKAGING FOR LIQUIDS e.g. Tetrapak						
Priority: MEDIUM/LOW Concern/ Poor material choice for short shelf Issue Not fully recycled (waste by-produc				short shelf life. by-products)		
Replacement Options	Composition/ Material & Notes	Certificati	ons	SU Disposal Method	Potential Suppliers	
	Glass/ clear PET plastic / HDPE plastic bottles and aluminium cans are preferable	Recyclab	le	Recycling	Numerous	

Milk packaging							
PROBLEMATIC ITEM: PLASTIC MILK SACHETS							
Priority	HIGH	Concern/Issue:	Not recycled				
Replacement Options	Composition / Material & Notes	Certifications	SU Disposal Method	Potential Suppliers			
Preferred option	Reusable and returnable Glass / metal container system.	Non-required	No disposal required	Request potential alternatives from supplier https://lekkefresh. com/			
	HDPE milk bottles (white only) other	Recycled	Recycling				
AVOID	Non-white/coloured HDPE milk/dairy bottles	Recycled	Recycling	Avoid using this type of packaging as it is recycled into a lower grade recyclate than white HDPE. The demand for white or clear HDPE is therefore higher.			
	Liquid board packaging	Not recycled	Landfill	There are only two liquid board packaging recycling facilities in South Africa, based in Gauteng. Recycling of this material would therefore require that it is transported to Gauteng. To avoid high transport costs this material is likely to be landfilled in the Western Cape.			
NOT ALLOWED	PET Milk bottles (white / clear)	Not recycled	Landfill	This type of packaging is not recycled.			
	Milk sachets (LDPE)	Not recycled	Landfill	This type of packaging is not recycled.			

Yoghurt containers						
PROBLEMATIC ITEM: SINGLE SERVING YOGHURT CONTAINERS						
Priority:	MEDIUM/LOW	Concern/Issue:	Not recy	vcled		
Replacement	Composition / Material & Notes	Certifications	SU Disposal Method	Potential Suppliers		
Preferred option	PP yoghurt tubs / buckets	Recyclable	Recycle			
AVOID	Single serving Polystyrene yoghurt containers	Not recycled	Landfill	This type of packaging is not recycled.		

Condiments packaging							
PROBLEMATIC ITEM: SINGLE SERVING SACHETS							
Priority:	HIGH Concern/Issue: Not recycled due to size and material						
Replacement	Material & Note	s Certifications	SU Disposal Method	Potential Suppliers			
Dispensers	Reusable meta dispensers.	Non-required	No disposal required	https://www.omnicatering. co.za/products/display- ware-and-buffet-services/ condiments/#content			
Refillable bottles	Reusable glass bottles. Preferab with metal lid.	ly Non-required	No disposal required	https://deco-vie.co.za/collec- tions/glass-condiments https://www.consol.co.za/ products/food https://bonpak.co.za/			
Squeeze bottles	Reusable plastic squeeze bottle	Non-required	No disposal required	https://www.bankskitchen- boutique.co.za/tableware/ tabletop/dressing-sauce-bot- tles.html			

Punnets and trays							
PROBLEMATIC ITEM: PET AND POLYSTYRENE PUNNETS AND TRAYS							
Priority:	MEDIUM/ LOW	rn/Issue: Not recycled					
Replacement	Composition/ Material & Notes	Certifications	SU Disposal Method	Potential Suppliers			
	Polypropylene punnets and Trays code 5 only allowed	None required	Recycling	Request PP from supplier as material/lid of choice should other options be offered. Only code 5 is actually recycled			
	Aluminium trays with a cardboard lid (not plastic)	None required	Recycling	Various			
	Cardboard punnets	FSC Certified	Recycling	https://www. merrypak. co.za/prod- uct-category/ pricing-and-mer- chandising/ pricing-and-mer- chandising/ pricing-and-mer- chandising-mer- chandising-card- board-trays/			
	Moulded Fibre	Locally Made	Compost / Food Waste	https://dfmsa. co.za/fresh-pro- duce-packaging/			

Punnets and trays						
PROBLEMATIC ITEM: PET AND POLYSTYRENE PUNNETS AND TRAYS						
Priority:	MEDIUM/ LOW	ern/lssue:	Not recycled			
	Composition/			Detential		
Replacement	Material & Notes	Certifications	SU Disposal Method	Suppliers		
	Kraft (paper board) Container with PLA liner	FSC Compostable	Compost / Food Waste	e.g. https://www. capecup.co.za/ https://ecopack. co.za https://nature- pack.co.za		
NOT ALLOWED	Moulded pulp paper punnets e.g. Sugar Cane Pulp or bagasse	FSC Certified	NOT ALLOWED	Despite the claims that these products offer, the current composting facilities in Stel- lenbosch are not able to process these. They also cannot be recycled. Many of these are also still imported. In addition, some contain long-chain PFAs which are linked to several adverse health effects.		
NOT ALLOWED	Kraft (paper board) Container with PE liner	n/a	NOT ALLOWED	The PE liner used does not allow this packaging to be composted.		
NOT ALLOWED	PET and PS trays	Not recycled	NOT ALLOWED Landfill	Avoid using this type of packaging as it is not recycled.		

Punnets and trays						
PROBLEMATIC ITEM: PET AND POLYSTYRENE PUNNETS AND TRAYS						
Priority:	Priority: MEDIUM/ LOW Concern/Issue: Not recycled					
Replacement	Composition/ Material & Notes	Certifications	SU Disposal Method	Potential Suppliers		
NOT ALLOWED		South African: SANS 17088:2020 European: EN13432:2000 EN14995:2006		Although compostable, these items are		
	PLA punnets/trays and lids	Global: ISO18606:2013 ISO17088:2012 – American: ASTMD6400:2012 Australian: AS4736:2006	NOT ALLOWED	such time that these can be manufactured locally, these should be discouraged.		

4. LIST OF ABBREVIATIONS

- FSC Forestry Stewardship Council
- HDPE High-Density Polyethylene
- HIPS High Impact Polystyrene
- LDPE Low-Density Polyethylene
- PE Polyethylene
- PET Polyethylene Terephthalate
- PFAs Per- and polyfluoroalkyl substances
- PLA Polylactic Acid
- PP Polypropylene
- PS Polystyrene
- PVC Polyvinyl Chloride
- SU Stellenbosch University

5. SU BIN COLOUR CODING



Recyclable = Blue

Food / compost = Green

Landfill = Maroon

6. LIST OF CERTIFICATIONS

South African:

SANS 17088:2020 – Specifications for compostable plastics – procedures and requirements for the identification and labelling of plastics, and products made from plastics, that are suitable for recovery through aerobic composting.

European:

ENI3432:2000-Packaging – Requirements for packaging recoverable through composting and biodegradation – Test scheme and evaluation criteria for the final acceptance of packaging

EN14995:2006 - Plastics - Evaluation of compostability - test scheme and certification

Global:

ISO18606:2013 – Packaging and the environment – organic recycling ISO17088:2012 – Specification for compostable plastic

American:

ASTMD6400:2012 Aerobically Composted in Municipal or Industrial Facilities

Australian:

AS4736:2006 – Biodegradable Plastic-Biodegradable Plastics Suitable for Composting and other Microbial Treatment - Australian Capital Territory

Certifications can be checked on <u>www.bpiworld.org</u> and / or <u>www.bioplastics.org.au</u>, alternatively see the Materials Document.

Forestry Stewardship Council:

FSC chain of custody certification provides credible confirmation for products with environmentally and socially responsible sources to access the market.

FSC forest management certification confirms that the forest is being managed in a way that preserves biological diversity and benefits the lives of local people and workers, while ensuring it sustains economic viability.