



OPERATIONAL SERVICES DIVISION

Purchasing Specifications for Compostable Food Service Ware



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In collaboration with
Responsible Purchasing Network

MA Contract Specs

- **2006 Effort - Two Product Categories**
 - Anticipated cost issue; limited use
 - Phase out conventional over time
- **2012 contract- availability, quality cost & improving**
- 100% biodegradable, made from renewable resources;
 - must indicate the percentage of ingredients from bio-based sources
- Compatible for composting in cafeteria food waste programs
- In compliance with **ASTM D6400-99** “Specifications for Compostable Plastics” (if contain compostable plastics)
- In compliance with **ASTM D6868** “Specifications for Biodegradable Plastic Coatings on Paper and Other Compostable Substrates” (for products with coatings)

MA Cost / Sales Comparison

Product (Case = 1000)	Conventional	BIO	% Differ.
Hot Cup 10 oz - Solo Bare		\$59.51	
Hot Cup 10 oz - paper - Certo	\$ 39.98		49%
Hot Cup 10 oz - foam - Dart	\$ 22.97		159%
Fork Heavy (Greenwave)		\$ 36.59	
Fork Heavy (Certo-plastic)	\$ 21.03		74%

<u>Contract # GRO29</u>	<u>Est. Annual Sales</u>	<u>Est. %</u>
Conventional Sales	\$ 1,205,940.	89%
EPP Sales	\$ 132,014.	11%

Green Purchasing Opportunities: Compostable Food Service Ware



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and
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By Responsible Purchasing Network

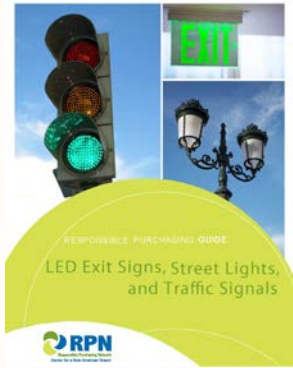


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RPN / Resources

International Network – state & local governments, federal agencies, higher ed, schools, businesses, non-profits, more

Resources



- Responsible Purchasing Guides for 15 product categories
- Webinars on “green” procurement issues
- Quarterly newsletter highlighting “green” purchasing activities and resources
- Sustainable purchasing policies and specifications; reporting templates
- Calculators and other tools



Scope of Bio-Specs For Purchasers

Types of products covered

- ✓ Cutlery
- ✓ Plates, bowls, cups
- ✓ Clamshells
- ✓ Gloves, trays, etc



Types of materials covered

- ✓ Bioplastics (e.g., PLA, potato starch, etc.)
- ✓ Other plant-based materials: paper, wood, bamboo, bagasse



Beyond Bio-Specs

Other Considerations



- ✓ **Design requirements (type, size, shape, color of products needed)**
- ✓ **Performance During Use**
- ✓ **Availability of Products from Local Vendors**
- ✓ **Cost (Best Value)**

Mandatory Criteria

- ✓ **Minimum Bio-based Material**
- ✓ **Nano-materials Declaration**
- ✓ **No fluorinated compounds**
- ✓ **Commercial compostability**
- ✓ **Products made in compliance with all applicable laws and regulations**
- ✓ **Products offered in bulk**
- ✓ **No polystyrene or PVC packaging**
- ✓ **10 samples must be provided**



Commercial Compostability

Bio-based food service ware products must be certified as “compostable” (in a commercial facility) based on verified compliance with the following standards:

- ✓ **ASTM D6400 or D6868 (North America)**
- ✓ **ISO 17099 (International)**
- ✓ **DIN EN 13432 (European Union)**
- ✓ **AS 4376 (Australia)**



Commercial Compostability

Thankfully, adherence to commercial compostability standards can be verified by one of the following certifications:



- ✓ Biodegradable Products Institute (North America)
- ✓ Green Seal GS-35 (USA)
- ✓ AIB Vincotte Inter (Belgium)
- ✓ Din Certo (European Union)
- ✓ Australian Environmental Labeling Association
- ✓ Japan Bioplastics Association



Commercial Compostability

Therefore, minimum requirements used by the states of Oregon and Washington for most products' compostability were:

Products must be certified by BPI or equivalent for commercial compostability, OR appear on the Cedar Grove Accepted Items list.



Optional Minimum Bio-based Material

All products (other than cutlery) must contain at least 90% bio-based carbon content; cutlery must contain at least 75%

- ✓ = % weight of total carbon content
- ✓ ASTM Test Method D6866

Documentation required

- ✓ Independent laboratory analysis
- ✓ Verification by USDA or an independent third party organization (e.g., OK Biobased Program of Vincotte)



Additional Sustainability Criteria (Desirable)

- ✓ **Additional Biobased Content (>90%)**
- ✓ **Sustainability Attributes of Biobased Material**
- ✓ **Sustainability of Biobased Product Manufacturing**
- ✓ **Other End-of-Life Considerations (labeling)**
- ✓ **Transportation and Packaging Considerations**



Packaging Considerations

- ✓ **Commercially compostable**
- ✓ **Easily recyclable**
- ✓ **Devoid of chemicals of concern**
- ✓ **Contains post-consumer recycled content**



Is Performance Testing Necessary?

NOT ALWAYS.

Good experiences reported by others may be enough, such as reports on SBC & RPN websites



www.sustainablebiomaterials.org/criteria.purchasing.php

- ✓ **Testing can help ensure new product sizes, shapes, and materials work in your system**
- ✓ **Your composting facility may need to test products to ensure they work for them**

Evaluation Criteria



- SIZE** – sufficient surface, not too big or small
- SHAPE** – works for stacking, space requirements
- STRENGTH** – maintains shape when carried
- INTEGRITY** – hold doesn't get soggy, leak, deform
- TEMPERATURE** – cup/bowl not too hot to hold;
cutlery doesn't melt in hot liquid
- AESTHETIC** – tactile feel, food does not absorb taste;
doesn't splinter
- TECHNICAL** – withstands refrigeration, stacks well,
clamshell closures work well, easy to
open/close, knife cuts, fork spears, spoon
holds liquid
- ASSESSORIES** – lids fit, don't leak or pop off

Product Evaluations

Compostable Food Serviceware Product Testing Results

Category: Hot Cups

Brands/ Lines	Manufacturer	Products	Approvals, Certifications	Overall Score (1-5)	% of Performance Criteria Passed	Comments
GalliGreen	Gallimore HealthCare	8 oz hot cup	BPI certified	5.0	100%	Not too hot to hold. Does not need a sleeve. Thick wall prevents cup from losing its shape.
EcoGreen	Kuan Chun Paper Company	4 oz cup	BPI certified	4.0	100%	Acceptable/ medium heat to hold
EcoGreen	Kuan Chun Paper Company	7 oz cup	BPI certified	4.0	100%	Acceptable/ medium heat to hold
StalkMarket, Jaya	Asean Corporation	12 oz hot cup	BPI certified	4.0	89%	Structure gives somewhat

Procurement Considerations

- ✓ **Local suppliers often have incomplete lines, some manufacturers sell direct**
- ✓ **Green product vendors often do not offer conventional food service ware products (separate line items)**
- ✓ **Energy use and greenhouse gas impacts – manufacturing locations and transportation impacts are difficult to sort out**



Cost Considerations

- ✓ **Difficult to project costs until actual bid results come in**
- ✓ **Important to estimate equivalent usage**
- ✓ **Include on bid solicitation core (market basket) list (give estimated volumes where possible)**
- ✓ **Factor in cost savings from avoided landfill fees**
- ✓ **Consider cost savings of reusable food ware**
- ✓ **Increase in business / customer loyalty from positive PR?**



Lessons Learned

- ✓ **Compostable food service ware market is very dynamic – new products, many materials, “greenwashing”**
- ✓ **Increasing # of high quality certified products and options**
- ✓ **A food waste recycling program requires careful planning & collaboration with kitchen and compost facility**
- ✓ **Top to bottom education is a key component**
- ✓ **May need to change waste haulers, compost sites**
- ✓ **Check Resources – local food service suppliers, “Approved Products Lists” for SF and Cedar Grove Composting**

Best Option – Issue an RFR using specs

User Testimony



Ashburton Café One Ashburton Place Boston

Monday - Friday
6:30 a.m. to 3:30 p.m.

Bio-Specs Early Adoptors

- ✓ **Santa Clara County**
(evaluated compostability and performance)
- ✓ **Practice Greenhealth**
(developed vendor questionnaire based on BioSpecs)
- ✓ **Commonwealth of MA** has category of bio-based products on contract
- ✓ **State of Connecticut**
(adding specs to statewide contract)



Thank You!

Responsible Purchasing Network (RPN)



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