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# **Complex Assemblies**

## **Issues and Examples from the Comprehensive Procurement Guidelines (CPG)**

# What to designate?

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- **Whole product**
- **Specific component/material**

# Whole Product

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- Advantages –
  - simpler and more familiar for consumers; fits manufacturers' usual marketing approaches
- Disadvantages –
  - possible misunderstanding of content requirements by both manufacturers and purchasers, e.g. which components/materials do the content requirements apply to?
  - Possible loss of credibility among purchasers if relevant component/material is only a small part of the designated product.



# Whole Product – CPG Examples

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- Office furniture
- Playground equipment
- Building insulation
- Laminated paperboard



# Specific component/material

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- **Advantages –**
  - **content requirements are more straightforward**
- **Disadvantages –**
  - **may be less recognizable to purchasers;**
  - **may not fit manufacturers' usual marketing approaches**



# Specific Component/Material – CPG Examples

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- Carpet face fiber
- Carpet backing



# How To Specify Content?

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- Percentage of whole product
- Percentage of specific component/material

# Percentage of Whole Product

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- Advantages – simplest for purchasers to understand
- Disadvantages – can be complicated for manufacturers to calculate; small numbers may hurt credibility with purchasers (1% - who cares?)

# Percentage of Specific Component/Material

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- Advantages –
  - less complicated for manufacturers, especially when requesting or interpreting information from external suppliers.
- Disadvantages –
  - can be difficult to explain and/or misleading to purchasers
  - difficult for manufacturers to calculate across different sites receiving varying amounts of recycled content stock

# Percentage of Specific Component/Material –

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## CPG Examples

- PET Carpet Face Fiber: 25-100 wt% PET
- Nylon Carpet Face Fiber: 1-100 wt% old carpet
- Nylon carpet backing: 35-70 wt% vinyl
- Structural fiberboard: 80-100 wt% total recovered materials in insulating core
- Laminated paperboard: 100 wt% postconsumer paper in insulating core
- Building insulation (numerous material types): Wt% specified material in insulating core

# CPG Examples, cont.

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- Office furniture
  - Furniture structure
    - 25-30 wt% steel
    - 75-100 wt% Al
  - Fabric
    - 100 wt% PET
  - Plastic components
    - 70-75 wt% HDPE
  - Particleboard/fiberboard
    - 80-100 wt% wood or ag fiber

# CPG Examples, cont.

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- Playground equipment (slides, swings, slides, climbing equipment, etc)
  - 100 wt% plastics (single or mixed plastics)
  - 95-100 wt% plastic composites
  - 25-100 wt% steel
  - 25 wt% Al

# Units of Measure?

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- Weight percent
  - Advantages – generally well understood and easy to measure
  - Disadvantages – may not work well for products with components of widely varying density.
- Other, such as percentage of volume, surface area, or functional units
  - Advantages – may be appropriate for products normally measured in those units
  - Disadvantages – not as well understood by purchasers; probably not appropriate for most complex assemblies (more applicable for simpler products commonly sold by volume or area).
- How to address “filler” materials and water in calculations?
- CPG examples: CPG uses weight percent in all cases.

# QUESTIONS?

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Marlene RedDoor

US EPA Office of Resource Conservation and Recovery

[reddoor.marlene@epa.gov](mailto:reddoor.marlene@epa.gov)

703-308-7276

Jim Darr

US EPA Office of Pollution Prevention & Toxics

[darr.james@epa.gov](mailto:darr.james@epa.gov)

202-564-8841