



AFFIRMATIVE PROCUREMENT

The purchase of environmentally preferable products manufactured from recycled and reclaimed materials.



RECOMMENDED RECOVERED MATERIALS CONTENT

The source for Recovered Materials
Advisory Notices (RMAN) and
construction products is located on
the EPA website.

[http:// www.epa.gov/cpg/](http://www.epa.gov/cpg/)



EPA PUBLISHED INFORMATION

CONSTRUCTION PRODUCTS:		
PRODUCT CATEGORY	% POST-CONSUMER CONTENT	% TOTAL RECOVERED MATERIALS CONTENT
Building Insulation - Rock wool		75% slag
Building Insulation - Fiberglass		20-25% glass cullet
Cement with Fly Ash	See product listing at www.epa.gov/cpg	
Cement with Ground Granulated Blast Furnace Slag	See product listing at www.epa.gov/cpg	



SPECIFICATIONS

The Specifications define the qualitative requirements for products, materials, and workmanship upon which the contract is based. They are organized into Divisions.

Refer to:

[http://si.ksc.nasa.gov/specsintact/
index.asp](http://si.ksc.nasa.gov/specsintact/index.asp)



NASA SPECIFICATIONS USING RECOVERED MATERIAL

DIVISION 01 - GENERAL REQUIREMENTS

DIVISION 02 - SITE WORK

DIVISION 03 - CONCRETE

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01110 - SUMMARY OF WORK

DIVISION 02 - SITE WORK

SECTION 02745 - ASPHALTIC CONCRETE
PAVING

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SURFACE COURSE

SECTION 02773 - CONCRETE CURB AND
GUTTER

DIVISION 03 - CONCRETE

SECTION 03330 - CAST-IN-PLACE
CONCRETE

SECTION 03331 - LIGHTWEIGHT
ARCHITECTURAL
CONCRETE



NASA SPECIFICATIONS USING RECOVERED MATERIAL

DIVISION 03 - CONCRETE

DIVISION 04 - MASONRY

**DIVISION 07 - THERMAL & MOISTURE
PROTECTION**

DIVISION 03 - CONCRETE

SECTION 03413 - STRUCTURAL PRECAST,
PRETENSIONED
CONCRETE PLANT CAST

SECTION 03435 - PRECAST CONCRETE
DECK

SECTION 03475 - PRECAST CONCRETE
WALL PANELS

SECTION 03525 - INSULATING
CONCRETE DECKS

DIVISION 04 - MASONRY

SECTION 04200 - MASONRY UNITS

SECTION 04220 - CONCRETE MASONRY UNITS

**DIVISION 07 - THERMAL & MOISTURE
PROTECTION**

SECTION 07210 - BUILDING INSULATION

SECTION 07220 - ROOF AND DECK INSULATION

SECTION 07510 - BUILT-UP BITUMINOUS
ROOFING

SECTION 07511 - BUILT-UP ASPHALT ROOFING



NASA SPECIFICATIONS USING RECOVERED MATERIAL

**DIVISION 07 - THERMAL & MOISTURE
PROTECTION**

DIVISION 09 - FINISHES

DIVISION 10 - SPECIALTIES

**DIVISION 07 - THERMAL & MOISTURE
PROTECTION**

**SECTION 07530 - SINGLE PLY MEMBRANE
ROOFING**

DIVISION 09 - FINISHES

SECTION 09650 - RESILIENT FLOORING

SECTION 09680 - CARPET

SECTION 09915 - PAINTING

SECTION 09920 - ARCHITECTURAL PAINTING

DIVISION 10 - SPECIALTIES

**SECTION 10165 - PLASTIC LAMINATE TOILET
COMPARTMENTS**

SECTION 10275 - ELEVATED FLOOR SYSTEM



DIVISION 01

SECTION 01110 - SUMMARY OF WORK

SECTION 01110
SUMMARY OF WORK

SECTION 01110
SUMMARY OF WORK

PART 1 GENERAL

- 1.1 SUMMARY
- 1.2 EXISTING WORK
- 1.3 REFERENCES (NOT APPLICABLE)
- 1.4 SUBMITTALS
- 1.5 CONTRACT AWARDS
- 1.6 WORK RESCHEDULING
- 1.7 OCCUPANCY OF PREMISES
- 1.8 GOVERNMENT FURNISHED PROPERTY
- 1.9 ONSITE PERMITS
 - 1.9.1 Utility Outages and Connection Requests
 - 1.9.2 Borrow, Excavation, Welding, and Burn Permits
- 1.10 SALVAGE MATERIAL AND EQUIPMENT
- 1.11 EPA DESIGNATED ITEMS INCORPORATED IN THE WORK**
- PART 2 PRODUCTS (NOT APPLICABLE)
- PART 3 EXECUTION (NOT APPLICABLE)

SECTION 01110 - SUMMARY OF WORK

1.11 EPA DESIGNATED ITEMS

INCORPORATED IN THE WORK

Various sections of the specifications contain requirements for materials that have been designated by EPA as being products which are or can be made with recovered or recycled materials. These items, when incorporated into the work under this contract, shall contain at least the specified percentage of recycled or recovered material. [A waiver must be completed and submitted by the Contractor, and approved by the Contracting Officer, if EPA designated products within this specification do not meet the required recovered or recycled content percentages. The following EPA designated products are included in this specification:]

1. [Fly Ash] [Blast Furnace Slag]
2. [Glass Cullet]



DIVISION 03

SECTION 03300 - CAST-IN-PLACE CONCRETE

SECTION 03300
CAST-IN-PLACE CONCRETE

PART 1 GENERAL

- 1.1 REFERENCES
- 1.2 GENERAL
- 1.3 SUBMITTALS
- 1.4 INSTALLATION DRAWINGS
- 1.5 FLATNESS AND LEVELNESS OF FLOOR SLAB
 - 1.5.1 Floor Tolerance Measurements

PART 2 PRODUCTS

- 2.1 READY-MIX CONCRETE**
- 2.2 STEEL REINFORCEMENT
 - 2.2.1 Deformed Steel Bars
 - 2.2.2 Welded Wire Fabric
- 2.3 FORMS
- 2.4 ACCESSORIES
 - 2.4.1 Waterstops
 - 2.4.2 Chemical Floor Hardener
 - 2.4.3 Curing Compound

SECTION 03330 - CAST-IN-PLACE
CONCRETE

2.1 READY-MIX CONCRETE

Note: Ground granulated blast furnace Slag and fly ash are materials listed in the EPA's Comprehensive Procurement Guidelines (CPG). If the Architect/ Engineer determines that use of certain materials meeting the CPG content standards and guidelines would result in inadequate competition, do not meet quality/performance specifications, are available at an unreasonable price or are not available within a reasonable time frame, the Architect/ Engineer may submit written justification and supporting documentation for not procuring designated item containing recovered material. Written justification may be submitted on a request for Waiver Form to the NASA Environmental Program Manager for approval. The Request for Waiver Form is located in the NASA Procedures and Guidelines (NPG 8830.1)



DIVISION 03

SECTION 03300 - CAST-IN-PLACE CONCRETE

SECTION 03300 CAST-IN-PLACE CONCRETE

PART 1 GENERAL

- 1.1 REFERENCES
- 1.2 GENERAL
- 1.3 SUBMITTALS
- 1.4 INSTALLATION DRAWINGS
- 1.5 FLATNESS AND LEVELNESS OF FLOOR SLAB
 - 1.5.1 Floor Tolerance Measurements

PART 2 PRODUCTS

- 2.1 READY-MIX CONCRETE**
- 2.2 STEEL REINFORCEMENT
 - 2.2.1 Deformed Steel Bars
 - 2.2.2 Welded Wire Fabric
- 2.3 FORMS
- 2.4 ACCESSORIES
 - 2.4.1 Waterstops
 - 2.4.2 Chemical Floor Hardener
 - 2.4.3 Curing Compound

SECTION 03330 - CAST-IN-PLACE CONCRETE

2.1 READY-MIX CONCRETE

Fly Ash [is required] [used] as an admixture [and] shall conform to ASTM C 618, Class [C] or [F] with 4 percent maximum loss on ignition and between 15 to 35 percent maximum cement replacement by weight.

Ground granulated blast furnace slag [is required] [used] as an admixture [and] shall conform to ASTM C 989, Grade [120] with between 25 to 50 percent maximum cement replacement by weight.



DIVISION 07

SECTION 07210 - THERMAL & MOISTURE PROTECTION

SECTION 07210 THERMAL & MOISTURE PROTECTION

PART 1 GENERAL

- 1.1 REFERENCES
- 1.2 GENERAL
- 1.3 SUBMITTALS
- 1.4 INSTALLATION DRAWINGS
- 1.5 FLATNESS AND LEVELNESS OF FLOOR SLAB
 - 1.5.1 Floor Tolerance Measurements

PART 2 PRODUCTS

2.1 THERMAL-INSULATION MATERIALS

2.1.1 Glass-Fiber Insulation Board

2.1.1.1 Board

2.1.1.2 Batts and Rolls

- 2.1.2 Mineral-Fiber Batts
- 2.1.3 Mineral-Fiber Flexible Blankets
- 2.1.4 Blown-in Mineral-Fiber Insulation
- 2.1.5 Rigid Polystyrene Board
- 2.1.6 Rigid Polyurethane Board
- 2.1.7 Vapor Barrier
- 2.1.8 Vapor-Barrier Type
- 2.1.9 Water-Vapor Subgrade Cover

SECTION 07210 - THERMAL & MOISTURE PROTECTION

2.1 THERMAL - INSULATION MATERIAL

2.1.1.1 Board

Glass-fiber insulation board shall contain total recovered materials content of 20-25 percent of recovered glass cullet. Glass cullet shall conform to ASTM D 5359.

2.1.1.2 Batts and Rolls

Glass-fiber insulation board shall contain total recovered materials content of 20-25 percent of recovered glass cullet. Glass cullet shall conform to ASTM D 5359.



DIVISION 07

SECTION 07210 - THERMAL & MOISTURE PROTECTION

SECTION 07210 THERMAL & MOISTURE PROTECTION

PART 1 GENERAL

- 1.1 REFERENCES
- 1.2 GENERAL
- 1.3 SUBMITTALS
- 1.4 INSTALLATION DRAWINGS
- 1.5 FLATNESS AND LEVELNESS OF FLOOR SLAB
 - 1.5.1 Floor Tolerance Measurements

PART 2 PRODUCTS

- 2.1 THERMAL-INSULATION MATERIALS**
 - 2.1.1 Glass-Fiber Insulation Board
 - 2.1.1.1 Board
 - 2.1.1.2 Batts and Rolls
 - 2.1.2 Mineral-Fiber Batts**
 - 2.1.3 Mineral-Fiber Batts**
 - 2.1.4 Blown-in Mineral-Fiber Insulation
 - 2.1.5 Rigid Polystyrene Board
 - 2.1.6 Rigid Polyurethane Board
 - 2.1.7 Vapor Barrier
 - 2.1.8 Vapor-Barrier Type
 - 2.1.9 Water-Vapor Subgrade Cover

SECTION 07210 - THERMAL & MOISTURE PROTECTION

2.1 THERMAL - INSULATION MATERIALS

2.1.2 Mineral-Fiber Batts

Mineral fiber shall contain a total recovered materials content of 75 percent slag.

2.1.3 Mineral-Fiber Flexible Blankets

Mineral fiber shall contain a total recovered materials content of 75 percent slag.



SPECIFICATION LANGUAGE

Incorrect - "Materials shall comply with all requirements of the CPG and the percentages of materials in the RMAN."

Correct - "Mineral fiber shall contain a total recovered materials content of 75 percent slag."



REQUEST FOR WAIVER NASA Procedures and Guidelines (NPG 8830.1)

Provides for a local/ regional waiver if it is determined that recycled/ recovered material indicated in specifications can not be provided.

– Reasons:

- **Inadequate Competition**
- **Unreasonable Price**
- **Substandard Quality/ Performance**
- **Unreasonable Procurement Time**

The waiver may be completed prior to design, during design, or during construction of a project.

- **Pre-Design and Design Waivers:** Generated by various in-house sources; Specifications can be tailored to requirements
- **Construction Waivers:** Contractor generated



SUMMARY

- **STAY CURRENT AND KNOWLEDGEABLE OF PRODUCTS THAT CONTAIN RECYCLED/ RECOVERED MATERIALS.**
- **REVIEW THE EPA'S LIST OF DESIGNATED PRODUCTS AND THE ACCOMPANYING RECYCLED-CONTENT RECOMMENDATIONS ON A FREQUENT AND REGULAR BASIS.**