CLICK on My Account to select your language.
after logging in to the materials database. Here you can browse recently viewed materials, new additions, and popular materials or begin a preliminary search by entering keywords or MC#. For a preliminary search, enter desired keywords into the search field. As you type, a list of suggestions will appear below. Clicking on one of these suggestions will lead to a material.
A SEARCH
for “Innovative Packaging” yields 422 results due to the broad nature of the search. Results can be narrowed by clicking on Refine Search.
BY NARROWING SEARCH to include sustainable characteristics such as biodegradable and recycled, results are automatically updated to reflect materials with these attributes.
TO LOOK FOR A MATERIAL with specific characteristics, click on Advanced Search.
Here you can narrow your search by category, processing, sustainability, usage characteristics and physical properties.
After checking each box, the number of available materials meeting these criteria is automatically updated. The more precise your selection, the fewer the search results. After checking the desired boxes, click on the orange Show All button at the right to see your results.
The search results based on the search criteria submitted in the advanced search page. Search results can be viewed in “Text + Images,” “Images Only,” or “More Text” grid format.
See the search results further narrowed to 20 results by selecting an additional search criteria (Compostable).
IN THE SEARCH RESULTS, you can tag materials by checking the little tick boxes on the bottom left of each image. After selecting materials, type in a tag label and click the orange plus sign to the right of text entry. These materials will then show up as the desired tag under My Materials.
After clicking on the orange plus sign, a message saying “Your tag has been saved under My Materials” will appear. Click on My Materials to see your tags. By clicking on your tag, in this case, “Packaging Materials,” you will be directed to a page displaying these materials,
(circled) to see results in images only format. Clicking on a material leads to material and manufacturer information.
Database User Manual

Material Connexion
materials database BETA

Enter Keyword or MCR
Advanced Search

-- Recently viewed --

Refine Search
Manufacturer

--- Country ---

Open all

Category
□ All
□ Naturals (20)
□ Polymers (10)

□ Injection Molding (12)
□ Extrusion (14)
□ Thermoforming (20)
□ Blow Molding (7)
□ Rotomolding (8)
□ Laminating (20)
□ Usable (5)
□ Web Site (10)
□ Made in (3)
□ Woodworking Tools (4)
□ Metal Working Tools (4)
□ Castable (4)

Sustainability
□ Biodegradable (20)
□ Polymers (12)
□ Certified or stewardship sources (2)
□ Compostable (20)
□ Non-hazardous (20)
□ Easily Recyclable components (6)
□ Recycled (pre or post-consumer) (1)
□ Renewables (13)
□ Single or more-motels (4)
□ Waste materials (4)

Fire resistance
Usage temperature
Colorfastness
Wear Resistance
Water Resistance
Acoustics
Chemical Resistance
UV resistance

20 Found
Text + Images | Images Only | More Text

Select All None
Tag selected as

□ MCI 6738-01 Green Polyethylene High density polyethylene (HDPE) that is produced from sugarcane. The sugarcane is used as a renewable alternative to petroleum for the raw material, and the plastic is almost physically and mechanically equivalent to standard HDPE. The growing and manufacture of the new material is claimed to remove CO2 from the atmosphere and it is suggested to be seven times better in carbon footprint than regular HDPE. The resin can be pigmented with standard colors and effects, and it may be extruded.

□ MCI 6419-02 Solayr® Masterbatch Compostable masterbatch for the pigmentation of compostable plastics. These pigments have been developed for biopolymers made from potato starch that are reclaim from the food processing industry. A range of standard colors are offered, however, due to the milky color of the base resin, bright colors are hard to achieve. In addition to the pigmentation, the resin can be enhanced by applying controlled release technology to add functionalities to the grades, like fertilizers, organic pesticides and fragrances. It is certified ISO

□ MCI 6419-01 Solayr® BP: Compostable plastic made from potato starch that is reclaim from the food processing industry. This biopolymer is fully compostable according to EN 13432 standards. Using a patented process, potato starch is converted to a plastic-like resin that can be heated and shaped into a variety of products through the injection molding process. To improve its properties, the granules can be combined with natural fibers as well as being blended with other biopolymers. Due to its origin, it has a milky beige ...

□ MCI 6254-01 Bio-Flax® Biodegradable and compostable PLA-blends for full applications. These granules consist of different percentages of PLA (polyactic acid), further biodegradable polymers as well as mineral fillers. Four mixtures are offered for different applications. The mix can be printed with common printing methods without any problem or also dyed with masterbatch. The material withstands temperature up to 170°F (77°C) whereas the extrusion temperature is significantly higher as that of other biodegradable composites. Because the polymer compound is completely homogeneous, below-extruded parts are formed as ...

□ MCI 6157-02 RENOL®-Extended Additive masterbatch that improves the properties of PLA corn-based plastics. This polymer chain extender, when added to condensation polymers, can make polymer chains that have broken due to degradation. A significant limitation in the growth of PLA (the highest-volume biopolymer in use today) has been its instability during processing. It is highly susceptible to thermal oxidative degradation, all of which result in loss of molecular weight and deterioration of mechanical properties. Robust mechanical properties are essential to ...

□ MCI 6076-01 Natur Tec™ Biodegradable, compostable film that has been produced from organic material. It is derived from a renewable resource via biological processes. It is a high strength, flexible clear film that also may be laminated onto other substrates such as paper or cardboard. It is FDA approved for food contact, reasonably priced and meets ASTM D4035-95 for biodegradability. It finds application as a grocery bag, a microwave film, for food preparation and for packaging of electronic parts.

□ MCI 5069-01 PlasTerra™ Biodegradable and compostable polymer sheet for a combination of starch, PLA and other fillers. This extruded thermoplastic sheet utilizes nano-composite additives to improve the surface of the material, giving a improved surface texture. It is compostable according to ASTM D6400 and is FDA approved for food use. It has improved thermal stability and impact strength compared to pure PLA. Applications for this thermoplastic sheet include food service items, packaging and gift items.
ABOVE, you can see your results further narrowed by selecting another criteria.
BY TYPING IN THE SEARCH FIELD, options will appear based on the beginning of the word. If you know the name of the material, start typing it and click on one of these options if it is the material you are searching for and you will be taken to the product page.
ecocradle™
Ecovative Design LLC >>
MC# 6596-01
Category: Naturals

Packaging made from agricultural waste materials and produced by living organisms. Regionally available agricultural byproducts like cotton bums, rice hulls, and buckwheat hulls that are high in lignin are used to grow fungal mycelium, the roots of mushrooms. Producing the material is an extremely low energy process because the material is grown in the dark, with no watering and no petrochemical input. The organisms grow in 7 days, forming miles of tiny white fibers that envelop and digest the seed husks, and bind them to form the final product. The entire process uses about 10 times less energy per unit of material than the manufacturing of synthetic foams. It has a 6 - 8 lbs/ft³ (0.098 - 0.126 g/cm³) density. The product is 100% biodegradable and compostable. The material is a replacement for expanded polystyrene custom molded foams, and is designed for use as a packaging material.

Country of Origin: United States of America

Usage Properties
- Creasibility: NA
- Fire resistance: Medium
- Usage temperature: Low
- Colorfastness: Medium
- Wear Resistance: Low
- Water Resistance: Low
- Acoustics: Sound absorbing
- Chemical Resistance: Low
- UV resistance: Medium
- Scratch resistance: Low
- Outdoor use: No
- Tear Resistance: Low
- Reflectivity: Light absorbing
- Stain Resistance: Low
- Thermal Conductivity: Low

Physical Properties
- Stiffness: Soft
- Structure: Closed
- Impact Resistance: Good
- Surface/Texture: Matte, Texture
- Transparency: Opaque
- Surface Hardness: Semi-hard

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THIS IS THE PRODUCT PAGE. This page provides the material name, the manufacturer, MC#, the category the material falls under, and all of its properties in addition to images, manufacturer contact information and the ability to email or share.
BY CLICKING on the Manufacturer Contact tab, you can see all of the relevant contact information.
MATERIAL PAGES can also be emailed by clicking on the Email tab.
Searches can also be conducted by selecting the recently viewed dropdown menu.
In addition to being able to tag materials directly from the search results page, it is also possible to tag materials from the product page. Type in how you would like this material to be tagged and click on the orange plus sign.
Packaging made from agricultural waste materials and produced by living organisms. Regionally available agricultural byproducts like cotton burrs, rice hulls, and buckwheat hulls that are high in lignin are used to grow fungal mycelium, the roots of mushrooms. Producing the material is an extremely low energy process because the material is grown in the dark, with no watering and no petrochemical input. The organisms grow in 7 days, forming miles of tiny white fibers that envelop and digest the seed husks, and bind them to form the final product. The entire process uses about 10 times less energy per unit of material than the manufacturing of synthetic foams. It has a density of 6-8 lbs/ft$^3$ (0.098 - 0.128 g/cm$^3$). The product is 100% biodegradable and compostable. The material is a replacement for expanded polystyrene custom molded foams, and is designed for use as a packaging material.

Country of Origin: United States of America

Usage Properties
- Cradle to Cradle: N/A
- Fire resistance: Medium
- Usage temperature: Low
- Colorfastness: Medium
- Wear resistance: Low
- Water resistance: Low
- Acoustics: Sound absorbing
- Chemical resistance: Low
- UV resistance: Medium
- Scratch resistance: Low
- Outdoor use: No
- Tear resistance: Low
- Reflectivity: Light absorbing
- Stain resistance: Low
- Thermal conductivity: Low

Physical Properties
- Density: 6-8 lbs/ft$^3$
- Structure: Closed
- Impact resistance: Good
- Surface/Texture: Matte, Textured
- Translucency: Opaque
- Surface hardness: Semi-hard

AFTER TAGGING THE MATERIAL, it will show up in the My Materials dropdown window.
We encourage anyone with suggestions to provide us with their feedback as we are constantly working to improve the user experience to ensure our vast database is efficiently utilized.