



Material ConneXion

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Contains thousands of new and innovative materials from world-wide sources, along with current applications, representing eight material categories. Offers an overview of product information including general description, profile, and images. current information on products, processes and processed raw materials.

To Start

1. go to Library Homepage
2. click Databases A – Z
3. select Material ConneXion

Off Campus? log in with your OCADU username / password

STUDENT PORTAL LOGIN

Please enter your OCAD Username and Password below.

Username (example: smithk, jc02xy, jdoe)

Password

To Search

This database works best for subject-based searching and **not** keyword searches

1. Select **Advanced Search**

2. click boxes to select:

- processing techniques
- sustainability features
- physical properties
- country of manufacturer

Note:

- you may select one or more property or processing technique
- the number of materials change according to the number of properties that you select

Material ConneXion® 19 Found

Log in
 Search
 Start over
 Need search help?

Category

- All
- Naturals (11)
- Polymers (7)

Processing

- Injection Molding (2)
- Extrusion (2)
- Thermofforming (8)
- Printable (6)
- Rotomolding (3)
- Lamination (11)
- Stitchable (7)
- Weldable (4)
- Die cut (9)
- Wood Working Tools (10)
- Metal Working Tools (7)
- Castable (1)

Sustainability

- Abundant materials (1)
- Biodegradable (19)
- Biopolymers (1)
- Certified or stewardship sources (1)
- Compostable (9)
- Durable (1)
- Lightweight (19)
- Non-toxic/non-hazardous (7)
- Easily Recyclable components (9)
- Recycled (pre- or post-consumer) (5)
- Renewable (11)
- Single or mono-materials (9)
- Waste materials (3)

Show me!
Clear All

Usage

Physical Properties

Fire resistance

- High (1)
- Medium (8)
- Low (8)

Usage temperature

- Low (19)

Colorfastness

- High (10)
- Medium (8)
- Low (1)

Wear Resistance

- High (6)
- Medium (3)
- Low (8)

Water Resistance

- High (7)
- Medium (9)
- Low (3)

Acoustics

- Sound absorbing (16)
- Sound reflecting (1)
- Sound Transparent (1)

Chemical Resistance

- High (1)
- Medium (9)

UV resistance

- High (8)
- Medium (7)
- Low (3)

Scratch resistance

- Medium (13)
- Low (5)

Outdoor use

- Yes (5)
- No (9)

Tear Resistance

- High (5)
- Medium (5)
- Low (5)

Reflectivity

- Light absorbing (18)

Stain Resistance

- High (3)
- Medium (10)
- Low (5)

Thermal Conductivity

- Low (10)

Stiffness

- Stiff (6)
- Semi-rigid (6)
- Flexible (10)
- Rubbery (1)

Structure

- Open (4)
- Closed (15)

Impact Resistance

- Good (7)
- Moderate (2)
- Poor (1)

Surface/Texture

- Glossy (4)
- Matte (13)
- Texture (11)
- Pattern (3)

Transparency

- Opaque (16)
- Translucent (3)
- Transparent (3)

Surface Hardness

- Hard (2)
- Semi-hard (9)
- Soft (9)

Country

- Australia (1)
- Canada (2)
- Finland (1)
- France (1)
- Germany (1)
- Italy (2)
- Japan (1)
- United States of America (10)

Enter keywords above
 — or —
 Select options at right and below to narrow your search, then click **Show me!** to see the results.

3. click **Show me!**

To View Results

1. Click product image.

Results include:

- descriptions of products
- images (often with alternate views)

2. Use tab to find:

- manufacturer information
- contacts for marketing and sales

Material Connexion® 19 Found

Log in
Search
Start over
Need search help?

Refine Search
Manufacturer
Country

Open all

Category

Processing

Sustainability

- Abundant materials (1)
- Biodegradable (19)
- Biopolymers (1)
- Certified or stewardship sources (1)
- Compostable (9)
- Durable (1)
- Lightweight (19)
- Non-toxic/non-hazardous (7)
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Fire resistance

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Wear Resistance

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Reflectivity

Stain Resistance

Thermal Conductivity

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19 Found

- Tyke® Soft-structure / Tyke® Fabric:** Fabric-like nonwoven fabric that offers the characteristics of paper, film and fabric...
MC# 1930-85
- Naturex®erverstärkte Endtopfprofile:** Natural fiber reinforced profiles produced from sustainable raw materials...
MC# 6599-02
- Tegris®:** Stiff thermoplastic composite that is truly recycling...
MC# 6044-02
- HoneyCOR™ ESP:** These pressure-molded honeycomb panels are produced utilizing low energy processing techniques...
MC# 6568-04
- Cubite®:** Three-dimensional, honeycomb knitted spacer fabric...
MC# 6142-02
- Boxes®:** Life sized cardboard building boxes...
MC# 6476-01
- Multistat®:** Reinforced multidirectional flex fibers for use in composite materials...
MC# 6467
- pebax® flexweave:** High-performance, bio-based elastomer (TPE)...
MC# 6644-05
- Expando®:** A process for creating 3D interlocking packaging material from sheets of cardboard...
MC# 6388-01
- Isoklenal®:** Sound and thermal insulation from Kenaf and polyester fibers...
MC# 5832-03
- 2005 Material Connexion Inc.**
- Technical Heedle-Punch Nonwovens:** Industrial felts made by needling natural or...

Material Connexion® pebax® flexweave
Arkema Inc. More
MC# 0664-05 Category: Naturals

DESCRIPTION MANUFACTURER CONTACT

High-performance, bio-based elastomer (TPE). This elastomer is made from up to 95% plant-based materials (namely oil from the Castor plant), this is a non-food based oil typically used as an engineering oil. It has shown reduced greenhouse gas emissions during the manufacturing process by up to 30%, compared to an equivalent fossil-based product. It has good mechanical, physical and chemical properties offering significant flexibility in a wide range of applications. This polymer can be used pure, as an additive or in blends with other polymers or rubbers. It can also be reinforced with various fillers. It is a low density polymer giving it flexible fatigue performance, good energy return, power transmission and excellent properties at low temperature. It offers consistency of mechanical performance over a wider range of temperatures. It is also chemical-, and UV-resistant. It is durable, recyclable, can be injection-molded, overmolded, extruded into films and sheets and it can be pigmented any color. It is one of the lightest elastomers, with good resilience and suitability for consumer products, sports equipment, and footwear applications.

Country of Origin: United States of America
Distributed in: North America, South America, Europe, Africa, Asia, Australia

Processing

Injection Molding: Yes
Extrusion: Yes
Cold Pressing/Deep Drawing: No
Blow Molding: No
Thermofforming: Yes
Lamination: Yes
Printable: Yes
Rotomolding: Yes
Weldable: Yes
Wood Working Tools: Yes
Die cut: Yes
Metal Working Tools: Yes
Castable: Yes

Usage Properties

Cradle to Cradle: N/A
Fire resistance: Medium
Usage temperature: Low
Colorfastness: High
Wear Resistance: High
Water Resistance: Medium
Acoustics: Sound absorbing
Chemical Resistance: Medium
UV resistance: Medium
Scratch resistance: Medium
Outdoor use: Yes
Tear Resistance: High
Reflectivity: Light absorbing
Stain Resistance: Medium
Thermal Conductivity: Low

Sustainability

Biodegradable
 Biopolymers
 Lightweight
 Renewable

Physical Properties

Stiffness: Semi-rigid, Flexible
Structure: Closed
Impact Resistance: Good
Surface/Texture: Glossy, Matte, Texture

Note: from the results screen, you still can limit your search by:

- Country of production
- Category
- Processing
- Sustainability measures