

UNIVERSAL TEXTILE TECHNOLOGIES + THE ENVIRONMENT:

We just keep getting friendlier

**Introducing BioCel
Polyurethane Carpet and
Turf Backing Systems**, featuring
ENHANCER™ Technology and ENFORCER™
Technology from The Dow Chemical
Company. BioCel technology takes Universal's
commitment to green a step further by
combining two advances in renewable and
recycled components, making it
our most environmentally
friendly product yet.

Start with Green

Polyurethane backings are proven performers – preserving resources by extending product life and reducing landfill waste.

Make it greener

Bio-based polymers are created from Soybean plants—a stable and 100% renewable resource.

UTT's BioCel backing systems meet or exceed the standards set for indoor air quality, with an added benefit—Our products rely on growing things—and that helps the air outdoors, too.

Celceram™ is a highly-refined recovered mineral endorsed by the US Environmental Protection Agency. Not a filler, but a component that actually improves product stability without increasing costs.

Our Greenest yet

BioCel technology brings it all together in one package—a high performance product that is 60–70% green by weight.



UNIVERSAL
TEXTILE TECHNOLOGIES

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BioBased
POLYMERS

 Celceram™

Green
Greener
Greenest

 **BioCel**™
Polyurethane Backing Systems

Sustainable results from
Universal Textile Technologies

Celceram is a trademark of Boral Materials Technologies
ENHANCER and ENFORCER are trademarks of The Dow Chemical Company
BioCel is a trademark of Universal Textile Technology
Photos provided by the National Soybean Board

What is BioCel™? BioCel is a new compound developed by Universal Textile Technologies for use in their high-performance polyurethane backing systems. It is a combination of bio-based polymers and Celceram™.

What are Celceram and bio-based polymers? Celceram is a product of coal combustion in an electrical utility power plant, carefully selected and processed for its component & performance characteristics. Bio-based polymers are polyurethane polymers that are manufactured with a portion of the polyol coming from a renewable resource, the soybean plant.

How are Celceram and bio-based polymers used in the manufacturing of high-performance polyurethane carpet backings? Celceram is a recovered green component that stabilizes and toughens the polyurethane compound utilizing consistent and chemical properties. Bio-based polymers are a renewable resource used the same as traditional polyurethane polymers to manufacture polyurethane carpet backings for the commercial carpet market.

Why would I want to include BioCel in my specification? Universal Textile Technologies polyurethane provides a high-performance "green" product for improved sustainability in the carpet industry.

Who, in addition to carpet mills, can benefit from this technology? Using BioCel, and Universal's recycled post-consumer secondary backing, end users can assist the U.S. economy and help support the agricultural community. We can lessen the amount of petroleum imported, improve air quality, reduce landfill issues, and limit the environmental footprint on our planet.

Which backings include BioCel? BioCel is included with all polyurethane carpet backings processed at Universal Textile Technologies including attached cushion and non-cushioned laminate backings.

Does adding BioCel impact the performance of the backing? No, the attributes long associated with polyurethane backings remain intact and in some areas improve.

Will this product look different? Polyurethane backing systems with Universal's grey non-woven will perhaps see a slight change in the grey compound.

Is there a fragrance associated with the product? A slight natural organic fragrance is associated with the bio-based polymers. Carpet backed with BioCel, however, has been shown to meet the Carpet and Rug Institute's Indoor Air Quality standards. For information on specific products, please contact your local mill representative.



Will adding BioCel promote the growth of bacteria in my carpet? No. BioCel is not a food source for bacteria.

Does adding BioCel earn me additional LEED points? Yes, specifying carpet with BioCel contributes to the total building materials requirement for rapidly renewable materials under the Materials and Resources Section of Version 2.0 of the LEED guidelines.

Can products including BioCel be specified for GSA usage? If so, what is the SIN number? Yes. Floor covering products incorporating BioCel can be submitted under GSA SIN31-601. Additional information may be obtained from Universal, the GSA or the Farm Bill.

Are any recycled materials used in the production of polyurethane carpet backings? Universal Textile Technologies currently integrates a percentage of post-consumer recycled PET, a non-woven secondary backing, and Celceram.



How does the addition of BioCel and the non-woven secondary backing impact the sustainability profile of the backing? With the addition of BioCel and the post-consumer non-woven secondary backing, Universal's high-performance polyurethane backing products offer significant percentages of recycled and sustainable components. Some products range to 60-70% green by weight. The backing weight is a composite of sustainable material (bio-based polymers), post-consumer materials (non-woven secondary), and recovered materials, (Celceram).

Additional information can be obtained from Universal Textile Technologies 706.876.5604, www.universal-textile.net or through your favorite carpet manufacturer's representative.

BIOCEL TURF BACKING SYSTEMS

Universal Textile Technologies is a leading manufacturer of high-performance polyurethane backing systems for carpet and synthetic turf. Both UTT's polyurethane attached cushion (PFAB) products, featuring ENHANCER™ Technology from The Dow Chemical Company, and non-cushioned polyurethane laminates (PAB), featuring ENFORCER™ Technology from The Dow Chemical Company, represent the industry's benchmark for quality in high-traffic commercial applications, including the corporate, health care, and education markets.

In addition, Universal is known as a leader in the development and manufacture of synthetic turf products. From playgrounds to major sporting arenas, home landscaping projects to heavy duty agricultural installations, UTT's synthetic turf products are safe, soft, and environmentally friendly.

It is estimated that as little as 1% of the earth's water is available for humans to drink—a limited resource too valuable to waste. Synthetic turf uses less water; fewer pesticides, and provides effective erosion control. Just ask the US Department of the Interior—they're using it to protect and maintain the delicate trails in our national parks. Add BioCel technology to this already environmentally beneficial product and, as we said, if it were any greener, we'd have to water it.

