

BIODEGRADABLE* & UNCOMPROMISED

Biodegradable* by nature, helped by Epsilyte



All Epsilyte products designed for disposable applications will now contain **EVRgreen**[®] biodegradable* technology, but the products you buy from Epsilyte are **NOT** changing.

HOW IS THAT POSSIBLE?

The simplicity of this innovation is what makes it unique. EPS is a polymer that degrades naturally in the environment. Still, until now, it has taken a very LONG time¹ to degrade. EPS was only appetizing to a limited number of bugs that do the hard work of degrading materials in the environment. With **EVRgreen** technology Epsilyte has sped up the process by inviting more bugs to the table. Nature does the rest.

With **EVRgreen** technology, Epsilyte materials used in disposable applications will be well over 90% gone in four years. This is why we say, "biodegradable* by nature, helped by Epsilyte."^{*}

^{*}**EVRgreen** EPS biodegrades 94% over four years compared to cellulose using the ASTM D5511 test that simulates wetter and biologically active landfills, which do not exist in all parts of the U.S. The stated rate and extent of degradation do not mean that **EVRgreen** will continue to degrade.

¹ Ba Thanh Ho, Timothy K. Roberts & Steven Lucas(2018) An overview on biodegradation of polystyrene and modified polystyrene: the microbial approach, *Critical Reviews in Biotechnology*, 38:2, 308-320, DOI: 10.1080/07388551.2017.1355293
Article Link: doi.org/10.1080/07388551.2017.1355293



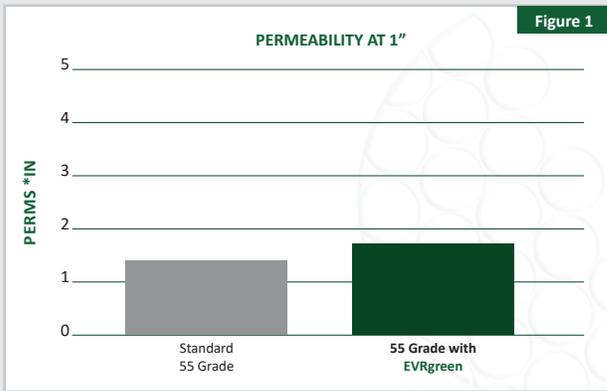


Figure 1

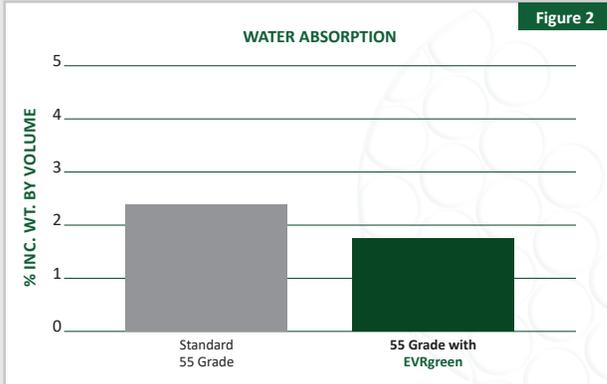


Figure 2

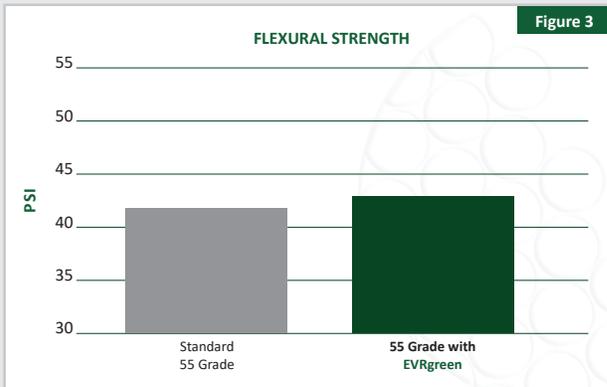


Figure 3

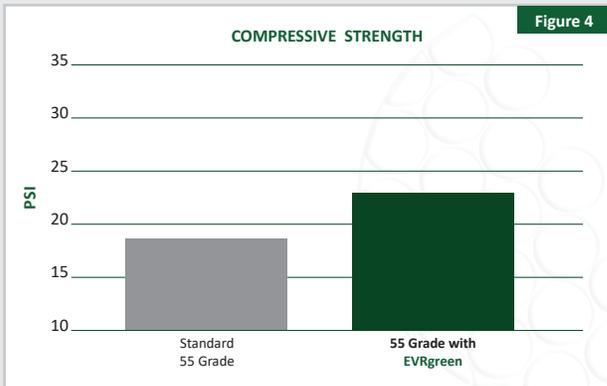


Figure 4

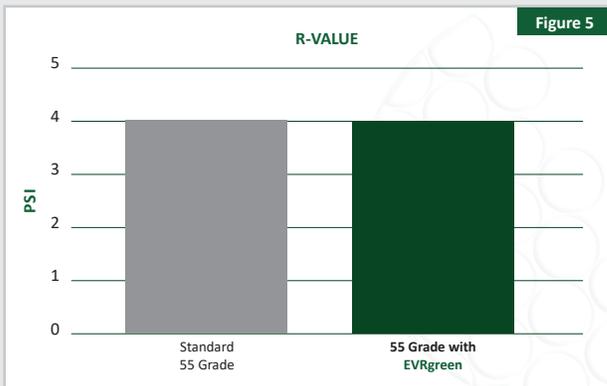


Figure 5



CAN A MATERIAL BE BOTH BIODEGRADABLE* AND NOT ABSORB MOISTURE WHILE IN USE?

We had the same question. As shown in Figures 1 and 2, we know that water is an integral part of the biodegradation mechanism for our advanced materials. But also know that our customers rely on Epsilyte materials to keep their perishable shipments dry. Epsilyte has extensively tested materials made with **EVRgreen** technology to ensure that we don't invite the bugs to the table at the wrong time!

Epsilyte's biodegradable* technology does not negatively impact physical property performance, as shown in Figures 3, 4, and 5. Testing was performed in Epsilyte's ISO-certified testing facility.

Because **EVRgreen** technology is an enzymatic degradation process (not oxo degradation), it does NOT:

- Become brittle
- Affect shelf life
- Create microplastics
- Require UV protective packaging
- Change the base resin properties
- Biodegrade without a microbe-rich environment

State Law Notice: California law prohibits the sale of plastic packaging and plastic products that are labeled with the terms 'biodegradable', 'degradable' or 'decomposable' or any form of those terms or imply in any way that the item will break down, biodegrade or decompose in a landfill or any other environment. These restrictions apply to all sales in or into the State of California, including such sales over the internet. For sales in or into California or any other jurisdiction which prohibits such claim by law, rule, or regulation, Epsilyte makes no claims that these products will break down, biodegrade, or decompose in a landfill or any other environment.

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