

StrataPlast™

Made In America

Environmentally Friendly Plastic Fillers

The Technology

StrataPlast™ fillers are 100% bio-renewable and lightweight, non-abrasive and inexpensive, and yet they absorb virtually no water and tolerate heat so well that they can be used in an extremely broad range of applications.

StrataPlast™ offers characteristics not found together anywhere else.



Bio-Renewable/Sustainable

StrataPlast™ is made entirely from plant matter, using environmentally friendly methods. It can be manufactured using any locally available source of lignocellulose, and all of the carbon in the raw material remains sequestered, another environmental plus.



Hydrophobic

Other bio-based fillers are hydrophilic. While the absorption of water can be somewhat controlled by the use of expensive coatings, this approach fails to get at the root of the problem. Over time, as water finds its way through degraded coatings, other bio fillers absorb and swell with moisture. Unique among biological fillers, StrataPlast™ is hydrophobic, for all practical purposes, water simply does not penetrate the material, even when it comes into direct contact with it.



No Mold, Fungi or Rot

None of the organisms that cause decay and foul odors can survive without water, and StrataPlast™ deprives them of any moisture. What's more, even if water were available to them, mold, fungus and bacteria cannot grow in or on StrataPlast™. No fungicides, herbicides or toxins of any kind are used in StrataPlast™; the material simply does not provide a suitable environment for microbes.



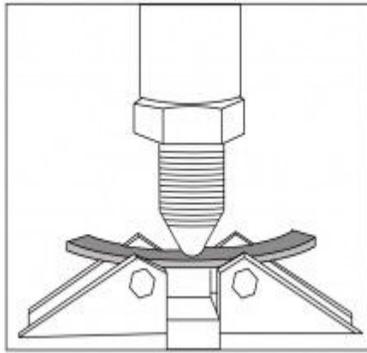
Lightweight

With a specific gravity of just 1.25 gm/cm³ StrataPlast™ is less than half as dense as calcium carbonate or talc, and 15% lighter than wood flour or other lignocellulose fillers, including those made from corn, wheat or straw. So wherever weight is a concern, StrataPlast™ is an attractive option. Less weight also means lower shipping and handling costs.



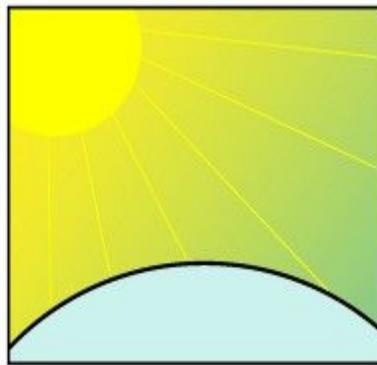
Heat Tolerant

Unlike other bio fillers, StrataPlast™ easily withstands temperatures as high as 290°C. As a result, it can be processed with polypropylene and polyamide (and a wide range of other polymers) with no out-gassing or other problems that can slow production. And because StrataPlast™ tolerates heat so well, it is ideal for use in products that end up in high-heat environments – under the hood of a car, for instance, or in lighting fixtures.



Unique Mechanical Properties

StrataPlast™ makes neat polymers significantly stronger, increasing tensile strength and modulus, as well as flexural strength and modulus. StrataPlast™ also performs as well or better than other fillers in terms of impact strength and increases the dimensional stability of virgin polymers.



UV Protection/Color

Because of its black color, StrataPlast™ filler absorbs and therefore protects polymers from ultraviolet radiation and the degradation it causes. And for those compounds that currently use carbon black as a coloring agent or for UV protection, StrataPlast™ offers an environmentally friendly alternative.



Inexpensive

Polymer resin is expensive. So adding StrataPlast™ or any competitively priced filler to a compound saves money. And since there is a greater volume of lightweight StrataPlast™ in a ton, our filler might even save you more money. Bottom line: you pay no more for all the benefits StrataPlast™ brings, and you may well pay less.

StrataPlast™ can be used in a wide range of applications:



In compounds not using fillers at all

StrataPlast™ fillers can be used where it has been impossible to use either mineral fillers (because of the weight they add) or lighter weight bio-fillers (because of the water they absorb and their instability at high temperatures). By enabling the creation of new lightweight, hydrophobic, heat tolerant compounds, StrataPlast™ fillers can improve performance in existing markets and help open new ones.



Wherever wood flour or other bio fillers are being used

Bio fillers made from wood, corn, wheat and straw are often good choices. But their hydrophilic nature can necessitate design changes or the addition of toxic chemicals – or both. Thanks to its hydrophobic nature, StrataPlast™ makes such compromises unnecessary, and virtually does away with product claims related to water absorption.



Where traditional fillers have been the only option

In applications where water and/or heat are a concern, heavy mineral or other non-organic fillers have been the only choice available. StrataPlast™ offers an attractive alternative: the option of substituting a lightweight, environmentally friendly filler that rivals or outperforms calcium carbonate and similar fillers in virtually all respects.

StrataPlast™ products are formulated to meet a variety of needs.

StrataPlast™ Ground

This is StrataPlast™ in its purest form, raw filler, ground to mesh sizes of 40, 50, 100 and 325, depending on the client's needs. The 100-mesh is our standard product. While primarily intended for use with thermoplastics, StrataPlast™ Ground can be used in other processing applications, as well, including Thermosets, Elastomers/Rubber and Asphalt. Please call for details.

StrataPlast™ Pellets

StrataPlast™ Pellets are StrataPlast™ Ground compressed into pellets to reduce dust and the risk of explosion from dust. StrataPlast™ Pellets also significantly lower shipping costs, because at double the bulk density of StrataPlast™ Ground, the same amount of material occupies far less space.

StrataPlast™ Masterbatch

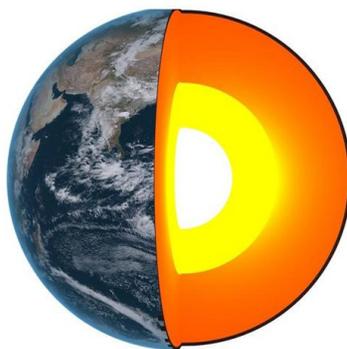
The ground filler is combined with a small amount of resin (no more than 25%) in order to facilitate handling (no dust, no risk of contamination during storage and the product can easily be processed using single-screw machines). It is the customer's choice which resin is used (for instance, LLDPE). Please call for details.

StrataPlast™ Compounds

StrataPlast™ Compounds provide the final compound that a customer requires, typically including 10% to 40% StrataPlast™ Ground in combination with the specified resin and any other necessary coupling agents. As with StrataPlast™ Masterbatch, this product is tailor made for each client, so please call for details.

Try StrataPlast™ today, and see the benefits firsthand!

Contact:



StrataPlast™

Made In America

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