



# What does "green" mean?

An attempt to clarify one of the most overused — and overabused — words in the lexicon today.

## Whitford

Makers of the world's largest, most complete line of fluoropolymer coatings

**T**he “green” movement has been around for years, but it has recently taken a giant step forward due to many such factors as fear about global warming, reaction to accelerating energy prices, concern over “carbon footprints”.

As a result, many manufacturers are working overtime to produce “green” products, from automobiles to airplanes to clothing to children’s toys to cookware. Most, of course, are using the word “green” to position themselves as environmentally friendly, or at least more so than their competitors. “Green” is today’s marketing buzzword.

But what do these marketers mean by the use of “green”? The answer is not easy, since almost all use the term in different ways, and many of them are disingenuous. Let’s take one example, this from the world of cookware.

Several lines of cookware have been launched recently using a ceramic coating to replace conventional nonstick coatings (including one under the trade name of “GreenPan”). The primary claim is that they contain no PTFE and no PFOA, therefore making them “green”. However, this is misleading at best. What these so-called “green” products do not disclose to their consumers are such facts as:

**1. The “ceramic” is applied using a solvent carrier**, so that solvents (volatile organic compounds which are harsh chemicals) escape into the atmosphere during the manufacture. Most conventional nonsticks today are based on water rather than solvents, which is harmless when evaporated.

**2. These ceramic coatings fail the “sustainability” test.** Tests run by Whitford and others in the cookware industry demonstrate that the best ceramic coatings last only about 15% as long as most of the standard PTFE-containing nonsticks. Put another way, conventional nonsticks provide more than six times the useful service life.

Assuming the consumer throws away a pan when the nonstick no longer functions, that means he or she would throw away six “Green-Pans” before disposing of one conventional PTFE-coated pan. Here are the implications:

**1. Six times as much raw materials** used to make the six pans.

**2. Six times the energy** used to move the raw materials, process them, fabricate the pans and get them to market.

**3. Six times the packaging materials** and energy to source, manufacture and print them.

**4. Six times the harsh solvents** pushed into the atmosphere when the ceramic coatings on these pans are cured. (Conventional nonsticks are waterborne.)

**5. Six times more the amount of refuse** (packaging and metal) sent to landfills.

*That’s a huge carbon footprint compared to conventional nonsticks. Yet marketed as “green”.*

### **What about PFOA and standard nonsticks?**

Forgotten fact: compared to these ceramic coatings, Whitford’s nonstick coatings (and those of some competitors) have been far greener for some time now. So let’s clarify the situation on cookware and PFOA as it presently stands:

**1.** Whitford’s coatings today are made either with PTFE dispersions (liquid form) totally free of PFOA or, according to EPA guidelines, have had the minute amount of PFOA previously used reduced by more than 99.4% (to be eliminated entirely over the next few years). What that means is, in the *worst case*, the PFOA in the PFOA-containing dispersions is in the range of >0.0001 percent by weight, or less than 1 part per million.

**2.** If there were any measurable PFOA in the PTFE dispersion, it would be thermally degraded by the curing process through which all nonsticks must pass (at least 805°F/430°C for five minutes). Not evaporated, destroyed.

**3.** In every study of cookware with nonstick coating by every regulatory agency worldwide, using FDA extraction techniques, the results have been the same: There is no detectable PFOA. So claiming “No PFOA” as if it were making products like the ceramic coatings “green” — when competitive cookware with standard nonstick coatings could say the same — is hardly a complete, fair or honest presentation of the facts.

4. Nor will you hear from such marketers what the U.S. Environmental Protection Agency has stated: “At the present time, EPA does not believe there is any reason for consumers to stop using any consumer or industrial related products because of concerns about PFOA. EPA does not have any indication that the public is being exposed to PFOA through the use of...trademarked nonstick cookware.”

### What does “green” mean?

The term “green” is, in its broadest sense, meant to suggest something that is “environmentally friendly”, which many people take to mean such things as “it doesn’t contaminate the environment” or “it doesn’t pollute” or “it is sustainable” insofar as it does not deplete our limited resources.

If these are generally accepted definitions of what consumers expect from products that are labeled “green”, then we must point out that very few products live up to the definitions. And how could they? Manufactured products that consumers buy begin with raw materials of some sort, which must be taken from the earth, processed, moved to a manufacturing site and subjected to some sort of manufacturing process. And once completed, the products must be transported to stores within the ultimate consumer’s reach. In the case of cookware, this involves the pan itself, the handle, rivets, the packaging it comes in — not just the coating. All such products need to be assessed in terms of “green” from raw-material stage to their ultimate disposal in a landfill.

All of these steps not only consume raw materials, but also require the expenditure of significant amounts of energy in the form of gasoline, diesel fuel, electricity and the like. So even the “greenest” products are not entirely green (but don’t expect most marketers to tell you that).

It’s interesting to note what the Federal Trade Commission publishes on the subject. This, unfortunately, is not law, which is why unscrupulous marketers can do what they do. (Note: Continued abuse with intent to deceive may well lead to legislation regulating “green” as indeed it did with the use of “organic”.) The FTC report is a list of guidelines for the use of environmental claims, this part from Section 260.7.

*(a) General environmental benefit claims: It is deceptive to misrepresent, directly or by implication, that a product, package or service offers a general environmental benefit. Unqualified general claims of environmental benefit are difficult to interpret, and depending on their context, may convey a wide range of meanings to consumers.*

*In many cases, such claims may convey that the product, package or service has specific and far-reaching environmental benefits. As explained in the Commission’s Advertising Substantiation Statement, every express and material implied claim that the general assertion conveys to reasonable consumers about an objective quality, feature or attribute of a product or service must be substantiated. Unless this substantiation duty can be met, broad environmental claims should either be avoided or qualified, as necessary, to prevent deception about the specific nature of the environmental benefit being asserted.*



### What about Whitford products?

Whitford has been and continues to offer a wide and growing variety of “greener” coating options, which provide substantially better extended release and durability than other competitors’ so-called “green” products.

For example: We have introduced a full line of standard nonstick coatings that have been made with PTFE dispersions without PFOA. The products have the same properties as our standard products, such as the excellent release and extended durability that the consumer has learned to expect from them. They qualify for the claim “Made without PFOA”.

All Whitford brands which use PTFE as their release agent including Excalibur,<sup>®</sup> Eclipse,<sup>®</sup> HALO,<sup>®</sup> QuanTanium,<sup>®</sup> and Quantum2,<sup>®</sup> are now available in PFOA-free formulations. And they all outperform and last longer than all the “green” products made with no PTFE (even ours). So, in terms of wear life and landfills, these improved conventional products are greener than those of the “GreenPan” variety.

In addition, we have introduced a coating system for cookware called “9888”, a 2-coat silicone hybrid formulated with excellent hardness and wear resistance. It is free of both PTFE and PFOA. Further, this system is an excellent alterna-

tive to ceramic coatings currently being offered on the market. Ceramic coatings are brittle, have a short release life, do not wear well and have a complicated application process which, if not executed properly, can cause a range of problems. 9888 has very good abrasion resistance, cooking durability and is easy to apply.

We are working on additional options that will be announced once we are satisfied with their performance.

### Remember...

Virtually nothing that is manufactured is completely “green”. What we at Whitford are attempting to do is to make our coatings more environmentally friendly as we maintain and even improve their performance (which reduces environmental impact as it contributes to the “green” aspect by extending useful wear life).

We strongly support the movement to protect the environment for the generations to come. We do not, however, support the “green” concept when it is more a marketing gimmick (called “greenwashing”) and less than truthful, designed to make a sale rather than help save the planet.

For more information on all of our coatings, please contact your Whitford representative, email us at [sales@whitfordww.com](mailto:sales@whitfordww.com) or visit our website at [whitfordww.com](http://whitfordww.com).

## How to contact Whitford

Whitford manufactures in 7 countries, has employees in 7 more and agents in an additional 25. For more information, please contact your Whitford representative or the nearest Whitford office (see our website: [whitfordww.com](http://whitfordww.com)).

The logo for Whitford, featuring the word "Whitford" in a stylized, bold, italicized font with a white outline and a slight shadow effect.

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