

COATING WORLD[®]

SPECIAL REPORT ON NONSTICK COATINGS AND HOUSEWARES FOR RETAILERS

New Coating From Whitford Outlasts Other Internally Reinforced Coatings By A Factor of 10

What is Eclipse[®]? New Eclipse is an incredibly tough, three-coat, internally reinforced nonstick system developed by Whitford Worldwide, manufacturer of the largest, most complete line of nonstick coatings in the world.

Eclipse is different from all other nonsticks in three important aspects:

1. The primer coat contains a carefully chosen and blended combination of resins and unusually hard materials, which permits a far higher percentage of special reinforcing elements.

2. The midcoat, actually a primer used in other Whitford reinforced systems, also contains a high percentage of the special reinforcing elements.

3. The topcoat is rich in fluoropolymers, and is dedicated entirely to "release" (the nonstick characteristic).

What do test results show?

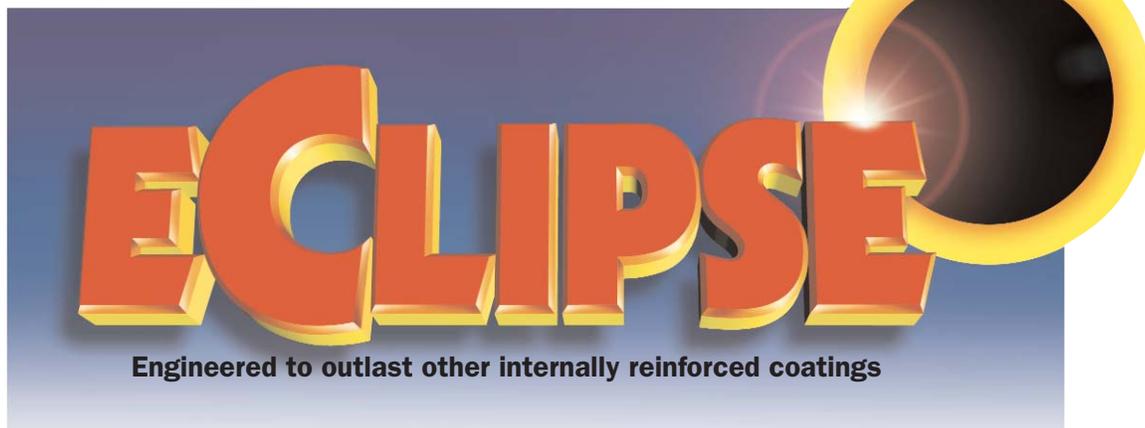
Whitford has tested the new Eclipse system via several standard test methods. The most severe is the Reciprocating Abrasion Tester (RAT, Whitford Test Method 135C*).

This is the most demanding proof we know, since it duplicates one of the harshest conditions to which a pan can be subjected in the kitchen: scouring

with a Scotch-Brite[®] pad (as described in BS 7069-1988). Durability, of course, is not meaningful unless the coating maintains its ability to release foodstuff (the "nonstick" quality). So Whitford stops the RAT process every 10,000 cycles and subjects the test pan

How difficult is application?

Application is as simple as any conventional three-coat system, and Eclipse runs easily on a



Engineered to outlast other internally reinforced coatings

to the standard Dry-Egg Test (Whitford Test Method 199B*) to assure continued release.

All tests show startling results. The toughest internally reinforced coating tested to date was able to reach 20,000 cycles. New Eclipse has gone beyond 200,000 cycles, offering at least 10 times the durability (with superb release).



The RAT replicates marring and wear from scouring, stirring with metal spoons, etc.

standard three-coat line.

Standard application methods can be used to apply the primer as well as the other coats), including HVLP. The primer and the midcoat are applied wet-on-wet, then flashed. The topcoat is applied, then cured.

Does it work on all substrates?

Eclipse has been thoroughly tested on stainless steel, porcelain and aluminum, from smooth to grit-blasted to hard-anodized. It works perfectly on all of these.

For more information

For more detailed technical information, please contact Whitford at the address on the back.

*For copies of Whitford's test methods, contact Whitford (address on back).

The RAT: Eclipse vs two leading internally reinforced nonstick coatings

Whitford's Reciprocating Abrasion Test (Whitford Test Method 135C) is designed to measure the ability of a nonstick coating to withstand the abrasion created by scouring and similar forms of damage associated with cleaning pots and pans.

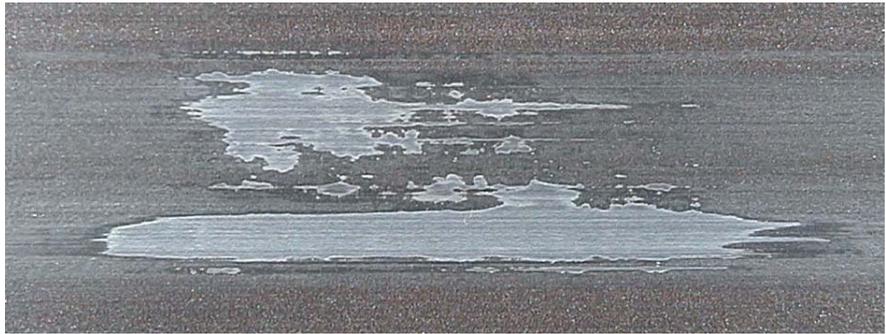
The test apparatus was designed by Whitford technicians, but is similar to test methods such as BS 7069-1988.

The test machine moves a weighted shaft in a straight line forward and backward over the coated surface. Fixed to the bottom of the shaft is a foot with a standard Scotch-Brite abrasive pad, the exact size of the bottom of the foot.

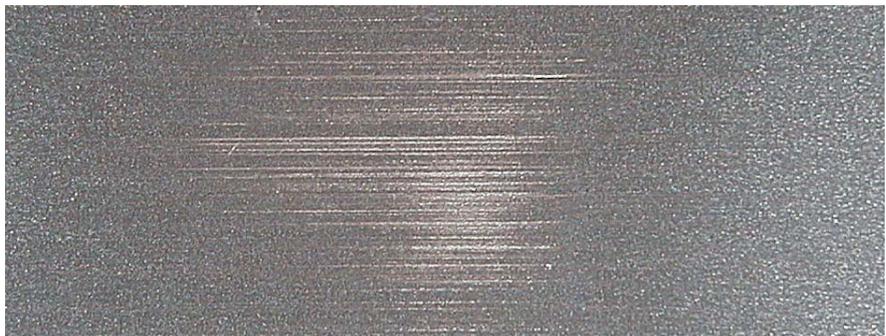
The test apparatus has a counter to measure the number of cycles, each of which includes a forward and backward movement of the shaft.

Whitford ends the test once 10 percent of the coating has been worn off the substrate in the test area by the pad. At this point, the number of cycles is recorded for comparison.

To the right are the results of RAT tests run on the same aluminum substrate coated with Eclipse and two leading internally reinforced coatings.



Coating "A" after 12,000 cycles of wear on the RAT. The coating has worn completely off the surface of the pan, exposing metal to which food will stick.



Coating "B" after 20,000 cycles of wear on the RAT. The coating has worn through to the metal, which provides enough surface for food to stick.



New Eclipse after more than 200,000 cycles on the RAT. The coating has been polished, but has not worn through and continues to perform normally.

Frequently Asked Questions

Question: "Is it okay to use a nonstick pot or pan to keep leftover food in the refrigerator?"

Answer: "There is no problem with using a nonstick pan to store food in the refrigerator that you have cooked but did not serve.

"Nonstick coatings are inert, so they will have no effect whatsoever

on the condition of the food or the flavor of the food.

"The only possible inconvenience, of course, is the size of the pan and the handle, which can occupy more space than a normal plastic storage pack. But people have been using nonstick pans to store food ever since nonstick pans came out.

"Just remember that, if air can damage the food, you should make sure that the pan is covered to help preserve the contents."

Send questions with your name, address to: Fran Attilio, Whitford Corp., Box 2347, West Chester, PA 19380-0110, call (718) 967-7967 or email: fattilio@whitfordww.com.

Coming in future issues:

- How some unusual coatings can give cookware and appliances a very special (and appealing) look.

CoatingWorld is published by Whitford Worldwide, Box 2347, West Chester, PA 19380-0110. Email: sales@whitfordww.com
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