



**Meet improved Eclipse[®],
the nonstick coating
that outlasts all other
internally reinforced coatings**

Whitford



ECLIPSE

Engineered by Whitford to outlast other reinforced coatings

What is Eclipse?

Eclipse is a three-coat, internally reinforced nonstick system developed by Whitford Worldwide, manufacturer of the world's largest, most complete line of nonstick coatings.

Originally launched several years ago, Eclipse is different from all other nonsticks in three important aspects:

1. The ground coat contains a carefully chosen and blended combination of resins and unusually hard materials, permitting a far higher percentage of special reinforcing elements.
2. The midcoat, actually a primer used in other Whitford reinforced systems, also contains 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 Eclipse system via several standard test methods. The most severe is the Reciprocating Abrasion Tester (Whitford Test Method 135C*).

This is the most demanding test we know since it duplicates the harshest condition to which a pan can be subjected in the kitchen: scouring with a Scotch-Brite® pad (as described in BS EN 12983-1:2000). Durability, of course, is not meaningful unless the coating maintains its nonstick quality. So Whitford stops the test every 10,000

cycles and subjects the test pan to the Dry-Egg Test (Whitford Test Method 199B*) to assure continued release.

All tests showed startling results. Originally, most internally reinforced coatings, when tested, reached 20,000 cycles. The first version of Eclipse went beyond 200,000 cycles, offering at least 10 times the durability (with superb release). Through our process of continuous improvement, Eclipse now exceeds 700,000 cycles while retaining its outstanding release!

How difficult is application?

Application is as simple as any conventional three-coat system, and runs easily on a standard three-coat line. Standard application methods can be used to apply the ground coat (and the other coats), including HVLP. The ground coat and midcoat are typically 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 your Whitford representative or Whitford directly (please see back page for email address and website).

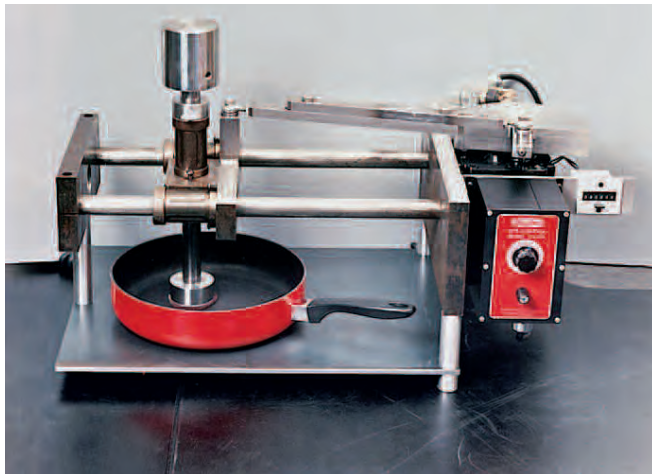
**For copies describing Whitford's test methods in detail, contact the Whitford office nearest you.*

Reciprocating Abrasion Test Results: Improved Eclipse vs two competitive 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 EN 12983-1:2000.

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 Reciprocating Abrasion Test was created to replicate marring and abrasive wear from scouring, stirring with metal spoons, etc.

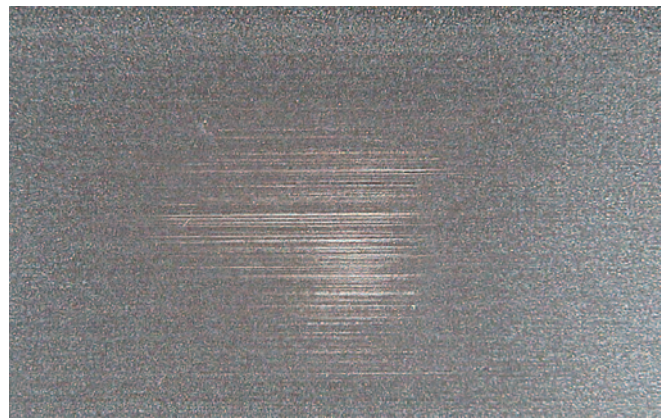
The test apparatus has a counter to measure the number of cycles, each of which includes a forward and backward movement of the shaft.

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.

Following are the results of Reciprocating Abrasion Tests run on the same aluminum substrate coated with improved Eclipse and two leading internally reinforced coatings.



Coating "A" after 12,000 cycles of wear. The coating has worn completely off the surface of the pan, leaving metal showing through.



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



New Eclipse after 700,000 cycles. The coating has been polished, and shows some wear, but continues to perform.



Eclipse other reinforced coating systems with improved Eclipse from Whitford

How to Contact Whitford

Whitford manufactures in 7 countries, has employees in 7 more and agents in an additional 25. To find the office nearest you, email sales@whitfordww.com or come see us on the internet at: whitfordww.com.

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Whitford manufactures the largest, most complete line of fluoropolymer coatings in the world.