

COATINGWORLD®

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Special *HOMEWORLD* Section On Nonstick Coatings

Whitford Inaugurates New Analytical Laboratory At Corporate Headquarters

More Than 3,700 Square Feet Of New Space Is Dedicated To The Latest In Testing Equipment As The Push For Even Better Nonstick Coatings Accelerates

Years ago Whitford identified research and development as its “secret weapon”. That’s because, as a privately-held company, Whitford is able to spend a higher percentage of company sales on R&D than any of its large, publicly-held competitors — which it does.

This emphasis on product development led Whitford to offer the largest, most complete line of fluoropolymer coatings in the world.

Now this commitment has taken on a whole new dimension.

R&D: How much is enough?

Whitford maintains laboratories in eight countries (with a major laboratory planned for the new facility now under construction in China).

Whitford has always focused on solving problems for customers, which has led to the creation of many different formulae, each tailored to solve the specific problem at hand.

This problem-solving has led to the development of new and better coatings. The most recent example of this is Whitford’s Eclipse family of coatings (featured in *CoatingWorld* XII), a group of internally reinforced cookware and bakeware coatings that outperform conventional coatings by a factor of ten.

What can the new laboratory do?

The past decade has witnessed a



Whitford Worldwide’s new analytical laboratory at corporate headquarters in Pennsylvania is staffed principally by two PhDs, who report to Leonard Harvey, worldwide technical manager (and also a PhD). Says Harvey: “This new investment is expensive, but it will help us stay ahead of the curve in technological development of nonstick, decorative and other consumer and industrial coatings.”

significant improvement in analytical equipment for the evaluation of coatings and coating materials. Says Chereese Allen, who heads up the new lab, “We now have improved instrument performance in terms of information, sensitivity and reliability. We can characterize component materials and final products with great precision, monitor process conditions and predict product performance. Our new lab is first-class.

“We’re digging in old as well as new areas, and everywhere we dig we’re digging deeper and with greater

accuracy than ever before.

“The wide variety of testing equipment that we have in the new analytical lab gives us the chance to investigate many different areas.

“Given my interests and academic background, I feel like a child with a huge toybox full of the newest and best toys one could want!”

Following are brief descriptions of some of the test equipment and its capabilities in



Chereese Allen, head of the new analytical laboratory, holds a PhD in analytical chemistry.

What Whitford's Analytical Equipment Achieves



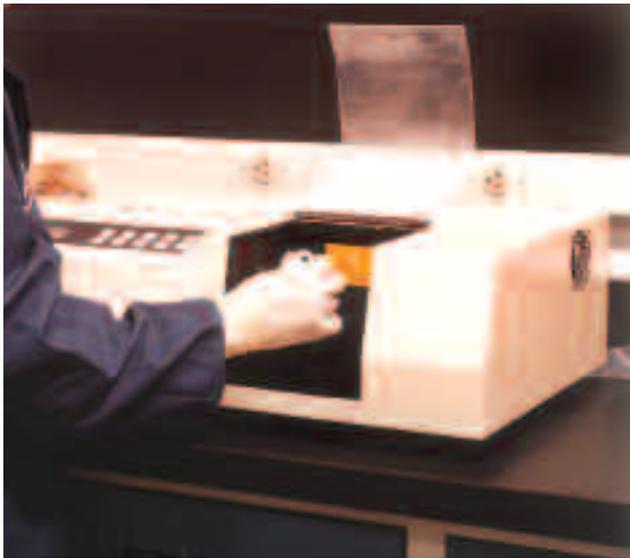
TA Instruments R200 Rheometer: Measures the flow and deformation of component materials in a coating formula, key to film formation, curing and aging. Understanding and analyzing the rheology of a coating is crucial for maximizing its performance.



Horiba LA-910 Particle Size Analyzer: Measures the precise size of particles. This is crucial to quality control since particle size can affect stability, chemical reactivity, opacity, flowability and material strength. This equipment provides an analysis of sizes in 20 seconds.



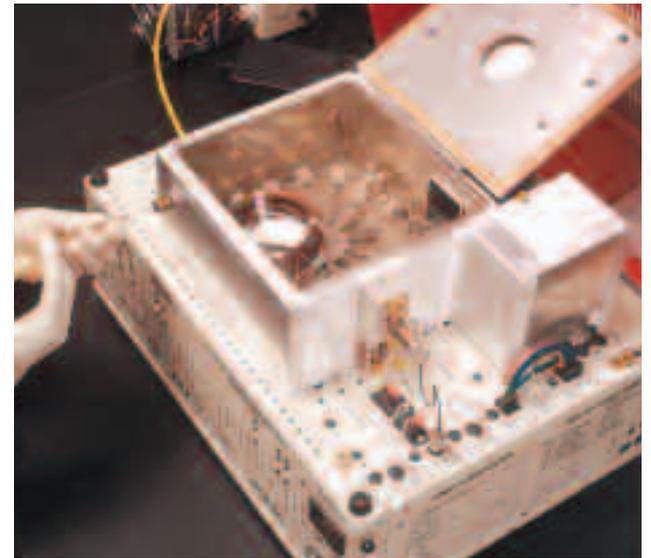
Differential Scanning Calorimeter: Determines the flow of heat into or out of a material. This is important in identifying melting points and phase transitions as well as glass-transition temperatures, which in turn provide information about stability, identity, purity and quality.



Infra-Red Spectrophotometer M500: Provides a unique "fingerprint" for every substance based on its molecular structure (no two substances have the same structure). This helps identify unknown materials in a coating and confirms the identity of known materials.



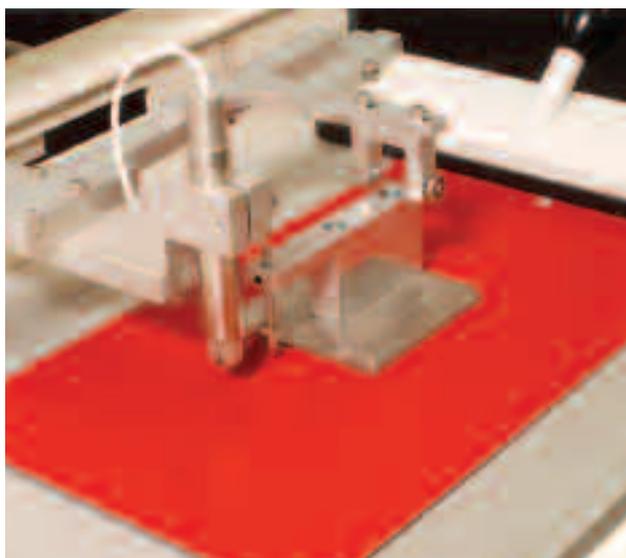
Drop Shape Analyzer DSA10: Just as rain beads up on a freshly waxed car, a drop of liquid should bead up on a coated surface. Measuring the angle of the bead against the surface provides the contact angle. The higher the angle, the better the release.



Gas Chromatograph SRI GC 8610C: This versatile equipment analyzes solvents as well as identifies resins in coatings via the solubility and boiling points of organic liquids. It is both a qualitative (the identity) and a quantitative (how much of each) tool.



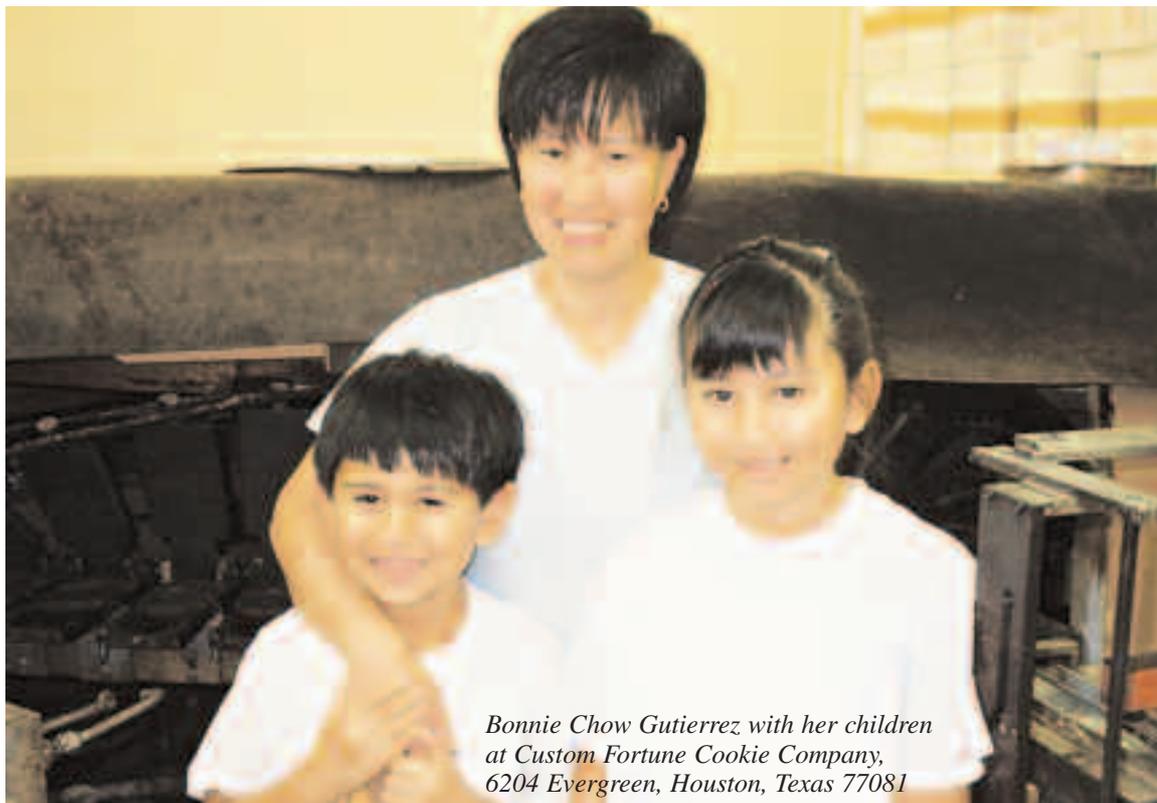
Dynisco Melt-Flow Index: Measurement of polymer flow indicates whether it will flow out properly when applied. Increased or decreased flow rate can indicate incorrect molecular weight, degradation, etc., which can mean loss of strength, impact and chemical resistance.



Monitor/Slip & Friction 32-06: Coefficient of friction is the ease with which two surfaces slide against each other (crucial to many coatings' performance). This tester measures both the static (from standing still) and the dynamic (once moving) coefficient of friction.



Nikon Zoom Stereomicroscope: One of its primary uses is to measure the dry-film thickness of applied coatings by providing a clear view of a tiny cross-section placed under the microscope. It can also detect improper inter-coat adhesion, a cause of coating failure.



Bonnie Chow Gutierrez with her children at Custom Fortune Cookie Company, 6204 Evergreen, Houston, Texas 77081

New Eclipse® Saves The Day At Fortune Cookie Factory In Houston, Texas

Bonnie Chow Gutierrez is a determined woman. And she has a thriving fortune cookie business in Houston to prove it.

Wanting to run her own business so that she could be with her children when she wanted, and work when she wanted, she opened Custom Fortune Cookie in 1984. She custom-makes fortune cookies for special events such as weddings, conventions and private parties. (She created special fortune cookies for the recent hit movie "Freaky Friday".)

She used to oil the aluminum molds for the cookies so they would not stick to the molds, but that was sloppy and affected the quality of the cookies. Then she heard about Eclipse.

So Bonnie Chow Gutierrez went to a local applicator of nonstick coatings and had all the parts in the equipment in which the cookies are made coated with Eclipse.

Says Mrs. Gutierrez: "Eclipse has dramatically improved the quality of the fortune cookies we make. But that's not all. Eclipse means far less damage and waste, and it makes cleaning our equipment so much easier. I give Eclipse an A+ all the way!"

Her fortune cookies are generally thicker, bigger and

have a smoother finish than what one finds in the typical Chinese restaurant. The fortunes are written by the customer for the specific event.

If you'd like to have special fortune cookies made for a party you're planning, contact Bonnie Chow Gutierrez at (713) 988-2542. Or go directly on line to www.customfortunecookie.com.



Some of the many varieties of fortune cookies available, all custom-made for the specific event to be held. The fortunes for the cookies are written by the customer to suit the event.

Eclipse® Family Of Reinforced Coatings Keeps Adding New Users

Eclipse is probably the most successful launch of a new product in the history of Whitford Worldwide.

Introduced at the IHA two years ago, there are now dozens and dozens of cookware and bakeware manufacturers and marketers enhancing

their products with this remarkably wear-resistant coating.

Internally reinforced with a unique system that is virtually as hard as diamonds, Eclipse' performance continues to win converts around the world. Here are a few of the new users.



Eclipse is the coating of choice for the Wonderbake® Professional line of high-quality bakeware (that comes with a 10-year guarantee).



Lifetime Hoan's KitchenAid® Roaster and Floating Rack chose Eclipse (and was a finalist in the Housewares Design Awards).



QVC Germany chose Eclipse for its handsome new line of cookware marketed under the "Kitchen Traditions" brand name.



Whitford Opens New Office In Hong Kong

Handsome New Facility Underlines Importance Of Asia, Creates Professional, Attractive Atmosphere for Staff

Located at 26 Nathan Road in Kowloon, just behind the Sheraton Hotel, Whitford's brand new high-tech offices overlook Hong Kong's famous harbor from the 22nd floor of Oterprise Square.

The offices are strategically located. The Star Ferry to Hong Kong Island and MTR (subway) are a short walk away. It's quick and easy to get to the Airport

Express Train that takes one directly to Hong Kong's new International Airport. Nearby hotels (in addition to the Sheraton) include the Peninsula, Holiday Inn Golden Mile, Hyatt Regency, Renaissance, Marco Polo.

Your "home away from home"

The facility, which occupies a total of 4,500 square feet, was designed

to accommodate guests traveling to Hong Kong in need of a place to work (there is room for five guests). Available are computers, telephone, fax, broadband connection to the Internet, scanners, copiers and printers (black-and-white and color). Secretarial services can be arranged. If you're traveling to Hong Kong and need space, let Whitford know.



The large conference room holds 12 to 14 people comfortably; the smaller conference room accommodates 4 to 6.



This is what one sees when the elevator door opens on the 22nd floor of Oterprise Square in Kowloon.



All offices are designed to provide the most modern communication possible, including broadband Internet.



Filing space is neatly hidden under the curved cabinet that lines the wall, looking out on the spectacular view of the harbor.