

ASTM Develops New Abrasion Test for Metals

A task group of ASTM Subcommittee G02.30 on Abrasive Wear has developed an evaluation of the relative abrasion resistance of metals. G 174, Standard Test Method for Measuring Abrasion Resistance of Materials by Abrasive loop Contact, ranks rigid engineering materials for abrasion resistance by rubbing with fixed abrasive media.

The test does not simulate gouging abrasion, and the subcommittee recommends G 81 to simulate these kinds of applications.

Stakeholders are invited to participate as they apply the loop abrasion test to proposed standards for ceramics, cemented carbides and thin film coatings. For more, contact Ken Budinski, Bud Labs, Rochester, NY (phone: 585-225-6529; FAX: 585-865-8596).

Precision Metalforming Ass'n Names New Board Chairman

Nels Leutwiler, Parkview Metal Products, Chicago, IL, has been named chairman of the Board of Directors of the Precision Metalforming Association (PMA). He was most recently active in PMA's efforts to repeal the tariffs on imported steel.

Two Wire Associations Will Co-locate Events

The Wire Association International (WAI), Inc. and the American Wire Producers Association (AWPA) are synchronizing their programs to effectively co-locate WAI's Wire Expo with the AWPA's Spring Operations Managers' Meeting. The event will be held June 12-16, 2004, in Cleveland, OH.

AWPA is a company-based association, while WAI is a worldwide technical society of wire and cable industry professionals.

FSCT Elects New Officers

Richard M. Hille (Cleveland Society) became the 82nd president of the Federation of Societies for Coatings Technology (FSCT) at the group's annual meeting held in November. The organization currently has 6,000 members. In his

Test Your Plating I.Q. #391

By Dr. James H. Lindsay, AESF Fellow

Conversion Factors

1. To convert from amperes per square decimeter (A/dm²) to amperes per square foot (ASF; A/ft²), multiply by ____
2. To convert from pounds per square inch (psi, lb/in²) to pascals (Pa), multiply by ____ . What is a pascal?
3. To convert from degrees Celsius (°C) [*or "degrees Centigrade" if you were born before 1952 and attended a secondary school in the midwestern United States*] to degrees Fahrenheit (°F), multiply by ____ and ____ . Who was Celsius? Who was Fahrenheit?
4. To convert from an Avoirdupois ounce to a Troy ounce, multiply by ____ . What is the difference between Avoirdupois and Troy measurements of weight?
5. To convert from ampere-hours per square foot (A-hr/ft²) to deposit 1 mil of electroplate to ampere-hours per square meter (A-hr/m²) to deposit 1 micron (μm) of electroplate, multiply by ____ .

Answers are on page 54

professional career, Hille is vice president, operations, with The Flood Company, Hudson, OH.

Federick "Fritz" H. Walker (Philadelphia Society) was named president-elect. He is a research associate for the Performance Material Technology Division at Air Products and Chemicals, Inc., Allentown, PA.

Dr. Rose A. Ryntz (Detroit Society) was elected secretary-treasurer. She is a staff technical fellow and senior manager for advanced material and fastener engineering at Visteon Corporation, Dearborn, MI.

Company News

□ Dixie Industrial Finishing Company, Atlanta, GA, hosted a tour for Georgia congresswoman Denise Majette (D). The tour also included a group of the company's customers and some local manufacturers. A news release from the company said that Dixie Industrial Finishing organized the tour to emphasize the importance of manufacturing to the economy of Georgia's

fourth congressional district. Some of Dixie's employees, customers and vendors voiced concerns to the Congresswoman about issues affecting the livelihoods of their businesses. Issues discussed included steel tariffs, unfair trade practices, rising health care costs and loss of business to offshore sources.

□ Goldschmidt Industrial Chemical Corporation (GICC), McDonald, PA, a member of the Degussa Corporation, is the recipient of the 2003 Governor's Award for Environmental Excellence. A manufacturer and distributor of inorganic and organic tin chemicals, the company was honored for efforts in resource protection.

The research and development team at GICC's Pennsylvania facility devised a new process that results in the recovery of 20,000 lb of tin per year, eliminating the impact of sending 80,000 lb. per year of tin waste residues to a smelter for recovery. The facility already recovers more than three-quarters of the tin losses incurred

during manufacturing, but continues to work to improve efficiency.

□ Enthone, Inc., West Haven, CT, a Cookson Electronics Company, has been awarded a single ISO 9001:2000 Quality Management System (QMS) certificate for all seven of its North American operations. Besides the West Haven facility, others included in the certificate are located at Orange, CT; Londonderry, NH; Bridgeview, IL; Irvine, CA; Tononto, Ontario, Canada; and Mexico City, Mexico.

□ NIBCO, Inc., Elkhart, IN, launched a celebration of its 100th anniversary year on November 12, 2003. The company is planning celebrations for its shareholders, associates and customers that will continue for 12 months, leading up to the anniversary date on November 12, 2004. The company employs more than 3,000 people at 12 manufacturing plants and five distributions centers.

□ The U.S. Food and Drug Administration (FDA) has issued a positive review of four proprietary coatings belonging to Surface Technology, Inc., Trenton, NJ. The review said the, "because these materials are highly resistant to corrosion and abrasion, there is little or no likelihood that components of these materials would migrate into food."

The FDA does not certify specific products. The Agency does, however, review the safety and issue regulations stipulating conditions of safe use for chemicals intended to be in contact with food.

□ Nalco Company's Finishing Technologies Group, Naperville, IL, has redesigned its Web site to be more focused on industry needs. The site provides more detail about the company's products, equipment and services. It also makes available some technical white papers and other literature. The Web site is www.nalco.com/ftg.

□ White Systems, Kenilworth, NJ, an FKI Logistics member company, has signed an agreement with Pacific Integrated Handling (PIH) to be its exclusive distributor in 13 western states in the U.S.

Under the agreement, PIH will sell exclusively for White Systems in Alaska, Washington, Hawaii, Oregon, California, Idaho, Nevada, Arizona, Utah, Montana, Wyoming, Colorado and New Mexico. The arrangement is expected to be extended to include British Columbia, Canada.

White Systems designs and builds high-speed, automated material storage and retrieval systems.

Answers to I.Q. Quiz #391

1. 9.29

2. 6895

- The pascal is the SI unit of pressure. One pascal is the pressure generated by a force of 1 newton acting on an area of 1 square meter.

3. Multiply by 1.8 and add 32.

- Anders Celsius (1701-1744) constructed the Celsius thermometer, with 0 for the boiling point of water and 100 for the freezing point. After his death, the scale was reversed to its present form. (*Contrary to popular lore, he was not assisted by Prof. W. C. Centigrade.*)
- Daniel Gabriel Fahrenheit (1686-1736), German physicist, is best known for inventing the alcohol thermometer (1709), the mercury thermometer (1714) and for developing the Fahrenheit temperature scale.

4. 0.911

- Troy weight is a system of weights used for precious metals and gemstones; based on a 12-ounce pound or 5760 grains.
- Avoirdupois weight is a system of weights by which coarser commodities are weighed, such as hay, grain, butter, sugar, tea, based on the 16-ounce pound or 7,000 grains.

5. 0.4236

□ Metcam Advanced Metalworking, Alpharetta GA, is reducing waste and saving money because of a pilot project it completed, with assistance from the Pollution Prevention Assistance Division (P2AD) of the Georgia Department of Natural Resources.

In the project that ran from January through June 2003, Metcam demonstrated it could significantly reduce washer-related rejects, cleaner chemical use, and wastewater generation through the use of an ultra-filtration (UF) membrane system and rinse counterflow system. By using the technology, Metcam realized a 78 percent reduction in operating costs related to wastewater evaporation and cleaner chemical use. It also reduced its wastewater generation by 94.5 percent, reduced chemical use by 64 percent and improved the quality of its product by 51 percent. In addition, Metcam also avoided the necessity to purchase a \$42,400 evaporator system that would have been needed to handle its increasing wastewater output.

P2AD is a non-regulatory division that provides free, confidential environmental technical assistance in the areas of pollution prevention, resource conservation, waste reduction, by-product reuse and recycling.

Wall Colmonoy Corporation, Madison Heights, MI, is celebrating 65 years in business. The company was founded in 1938 under the trade name Colmonoy.®

The company was founded by metallurgists Norman Cole and Walter Edmonds.

Colmonoy was later purchased by A.F. Wall who named it Wall Colmonoy Corporation. The company manufactures nickel-based hard-surfacing alloys and brazing filler metals. The headquarters is located in Madison Heights, with affiliates in Canada, the U.K. and France.

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