

PRODUCT HIGHLIGHTS

Galvanizing, Coatings and Fire Protection Products

A/D FIRE PROTECTION SYSTEMS

420 Tapscott Rd.
Scarborough, Ontario, M1B 1Y4
Canada
Ph: 800.263.4087 or 416.292.2361
Fax: 416.298.5887
mail@adfire.com
www.adfire.com

A/D Fire Protection Systems manufactures a diversified line of passive fire protection products for the building construction industry. Product line includes sprayed fire resistive materials for structural steel and concrete, intumescent fire resistive coatings for structural steel, and A/D FIREBARRIER firestopping materials for sealing joints and openings for service penetrations through fire separations.

A/D FIREFILM@II is a decorative, thin-film, intumescent fire resistive coating for structural steel. It is listed and certified by UL and ULC for ratings up to three hours. Typical dry film thickness is only 45 to 130 mils, yet when exposed to fire the coating forms an insulating ash up to 4" thick that protects the steel. A/D FIRE-FILM@II allows designers an exposed steel appearance in combination with fire resistance ratings required by building codes. It provides a smooth, durable, and impact- and abrasion-resistant surface. Available in a wide range of colors and applied by our network of authorized applicators

ALBI MANUFACTURING, DIV. OF STANCHEM, INC.

401 Berlin Street
East Berlin, CT 06023
Ph: 860.828.0571
Fax: 860.828.3297
info@albi.com
www.albi.com



Albi Clad TF -For exposed interior structural steel. The first UL-classified, water-based, thin-film intumescent fireproofing. Attractive finish conforms to contours of the substrate. Thin, lightweight film rated for 1- to 3-1/2 hrs. per ASTM E119.

Albi Clad 800-A solvent-based intumescent mastic that protects exterior structural steel and other structural materials, resists weathering, UV exposure, and other extremes. Proven over decades in challenging environments, including offshore drilling platforms, dock facilities, and petrochemical plants. UL listed for up to 3-hr. Per ASTM E119 and UL 1709.

Albi DriClad - Natural basalt fireproofing fire-board for interior structural steel. Uniform density and thickness for cost-effective, UL-classified fire protection up to 2-hrs. DriClad cuts easily with a common table saw. Mechanically fastened with AlbiScrew® system for a fire-proven, sturdy joint.

Albi Clad TF and 800 have been UL tested for resistance to high humidity, heat, aging, CO2/SO4-industrial atmosphere, chlorine, and washing. Albi Clad 800 has also been UL tested with weatherometer, salt spray and freeze/thaw for exterior conditions. Field proven for decades.

AMERICAN GALVANIZERS ASSOCIATION

6881 South Holly Circle, Suite #108
Centennial, CO 80112
Ph: 800.468.7732 or 720.554.0900
Fax: 720.554.0909
aga@galvanizeit.org
www.galvanizeit.org

Serving the needs of specifiers, architects, engineers, contractors and fabricators throughout North America since 1935, the American Galvanizers Association (AGA) provides information on the most innovative applications and state-of-the-art technological developments in hot-dip galvanizing for corrosion protection. Created to educate and train in the specification and use of hot-dip galvanizing, the AGA maintains a large technical library, distributes numerous industry publications, offers free educational seminars, and provides toll-free technical support to the specifying community.

AMERON INTERNATIONAL PERFORMANCE COATINGS & FINISHES GROUP

13010 Morris Road
Suite 400
Alpharetta, GA 30004
Ph: 678.393.0653
Fax: 678.566.2699
dsimmons@ameron.com
www.ameroncoatings.com



Ameron International Performance Coatings & Finishes Group is a worldwide manufacturer and supplier of a broad line of high-performance coatings for structural steel includ-

ing inorganic zinc primers, preconstruction primers, epoxies, polyurethanes, polysiloxanes and a variety of specialty coatings.

Ameron protective coatings products are suited for use in diverse industries such as oil and gas production, refining, petrochemical processing, fossil and nuclear power, bridge and infrastructure maintenance, general manufacturing, pulp and paper, municipal water and waste treatment, and original equipment manufacturing.

AZTEC GALVANIZING SERVICES

1300 S. University Dr.
Fort Worth, TX 76107
Ph: 817.810.0095
Fax: 817.336.5354
cdwilliams@aztecg galvanizing.com
www.aztecg galvanizing.com

Aztec Galvanizing Services, a division of AZZ, owns and operates 11 hot dip galvanizing plants located in the South and Southwest, with kettles ranging from 25' to 58' in length. With Aztec's network of plants, they are able to accommodate the largest projects with customized turnaround time at a competitive price. Aztec has implemented "Galvextra," their Nickel-Zinc alloy process, which provides the ability to meet the highest quality standards necessary in the competitive after-fabrication steel market.

CORTEC CORPORATION

4119 White Bear Parkway
St. Paul, MN 55110
Ph: 651.429.1100 or 800.4.CORTEC
Fax: 651.429.1122
info@corotecvci.com
www.corotecvci.com



Manufacturer of environmentally friendly materials-protection technologies including patented VpCI™ and MCI® products, biodegradable packaging materials and liquids, and additives. Product lines include: packaging, surface preparation, coatings, metalworking fluids, process additives, retail, concrete/construction, water treatment, industrial/MRO, preservation, and Total Corrosion Control™ Solutions. Full laboratory, testing, on-site consulting and technical assistance available.

PRODUCT HIGHLIGHTS

Galvanizing, Coatings and Fire Protection Products

DUNCAN GALVANIZING

69 Norman Street
Everett, MA 02149
Ph: 617.389.8440
Fax: 617.389.2831
info@duncangalv.com
www.duncangalv.com

Since 1890, Duncan Galvanizing has developed systems to protect today's steel:

- DELTAGALV, enhanced galvanizing meeting all ASTM and AASHTO requirements, providing long-lasting corrosion protection with an architecturally pleasing surface.
- PRIMERGALV, a factory applied universal primer for galvanized steel which is to receive a field applied topcoat.
- COLORGALV, a patented architectural finish for galvanized steel, available in any color and warranted for 20 years.

Duncan is introducing three new processes:

- DUNCAN COLORGALV THERMOPLEX PROCESS, a high performance, dry-applied coating system designed to be a durable, thick, environmentally friendly architectural finish over galvanized steel, "black" steel, aluminum or other metals.
- DUNCAN THERMOSET, similar to Thermoplex, but a thinner, harder material available in an unlimited range of colors.
- DUNCAN COLORSHIELD, a water-based pigmented spray-over galvanized steel developed to identify OEM products or to mask the zinc appearance in selected applications.

ELCOMETER, INC.

1893 Rochester Industrial Drive
Rochester Hills, MI 48309
Ph: 248.650.0500
Fax: 248.650.0501
inc@elcometer.com
www.elcometer.com



For the precise measurement of coatings, the new Elcometer 456 offers radical advances in both design and performance. The Elcometer 456 coating-thickness gauge is remarkably easy to use. Step by step, this menu-driven instrument walks you through the entire calibration

and data collection process. Get fast, accurate readings with full on-board statistics including storage of up to 40,000 readings in 999 batches.

GREGORY GALVANIZING, DIVISION OF GREGORY INDUSTRIES

P. O. Box 80508
Canton, OH 44708
Ph: 330.477.4800
Fax: 330.453.9691
www.gregorycorp.com

In business since 1896, Gregory Galvanizing operates one of the largest galvanizing kettles in the country. Equipped with a 52'0"-long x 6'4"-wide x 8'6"-deep kettle, we are capable of galvanizing large bridge beams, transmission poles, monopole sections and other large structural fabrications that are designed for the galvanizing process. Small parts such as fasteners, steel hardware and OEM parts are galvanized at our small kettle on our centrifuge system, providing a high quality finished coating. All hot dip galvanizing is done to ASTM and AASHTO standards.

GRACE CONSTRUCTION PRODUCTS, SPECIALTY BUILDING MATERIALS

62 Whittemore Avenue
Cambridge, MA 02140
Ph: 866.333.3726
Fax: 617.498.4311
www.graceconstruction.com



The Monokote and FlameSafe product lines offer a range of quality solutions. Monokote is a cementitious, spray-applied fireproofing product designed for fast and easy application to steel substrates and offers up to four hours of fire protection when used on structural steel columns, beams and fluted decking. Monokote is applied quickly and easily, requiring only the addition of water on the job site.

Monokote is available in a variety of formulations to provide the most efficient fire protection. MK-6/HY, MK-6s, and RetroGuard are ideal for a wide range of concealed applications. Z-106 and Z-146 provide exceptional performance in exposed applications and high traffic areas.

Applications include commercial and government buildings; hotels, resorts and casinos; schools, museums and hospitals; and transportation centers.

FlameSafe, our comprehensive line of firestop products, includes: intumescent/elastomeric products, sealants, mortar, putty and putty pads, firestop bags, sleeves, devices and a line of cable protection products ideal for new or retrofit applications in commercial, industrial and residential buildings.

HYDRONICS ENGINEERING

34119 Fremont Bl, Suite 609
Fremont, CA 94555
Ph: 800.845.9819
Fax: 801.383.9788
sales@hydronicseng.com
www.hydronicseng.com



Commercial 4.x--Commercial Fire Sprinkler Hydraulics; Residential 4.x--Residential Fire Sprinkler Hydraulics; StandPipe 2.x--Fire StandPipe Hydraulics; Hydrant Flow Test 4.x--Hydrant Flow Testing; Commercial 5.x--Commercial Fire Sprinkler Hydraulics for Networks. All software packages are accompanied by illustrated user manuals. Free customer support.

INDUSTRIAL GALVANIZERS

3535 Halifax Road
Petersburg, VA 23805
Ph: 888.442.4258
Fax: 804.733.2274
scompton@indgalv.net
www.indgalv.net

Hot dip galvanize steel in five locations. All are ISO Registered or working toward registration. Industrial Galvanizers, Birmingham, 877-598-4258. Kettle size 58'L x 7'-2W x 9'D, Spin Kettle 20' L x 4'-1W x 5'-3D. Industrial Galvanizers, Columbia, 877-254-0020. Kettle size 30'L x 5'-6W x 9'D. Industrial Galvanizers, Miami, 877-888-4258. Kettle size 35'L x 6'W x 9'D. Industrial Galvanizers, Tampa, 800-776-4258. Kettle size 42'L x 6'W x 9'D, Spin Kettle 15'L x 5'W x 6'D. Industrial Galvanizers, Virginia, 888-442-4258. Kettle size 50'L x 6'W x 9'D.



PRODUCT HIGHLIGHTS

Galvanizing, Coatings and Fire Protection Products

INGAL PRODUCTS AMERICA, INC.

5154 Lakespring Court
Dunwoody, GA 30338
Ph: 770.986.0668
Fax: 770.986.0660
c.e.lawson@world.net
www.indgalv.net



Why use hot dip galvanized lintels for your construction project? From 100-story skyscrapers to new homes, buildings have many applications for galvanizing.

Long Life. Previously used only in commercial applications, galvanizing now can provide unsurpassed corrosion-free life to new homes. Quality builders and brick contractors know that galvanizing is the best long-term choice for brick construction projects.

High Quality. Galvanizing addresses renewed emphasis on the part of the consumer for improved quality in residential construction. The timeless quality of brick construction is enhanced by the superior corrosion protection of galvanizing versus prime painted.

Low Maintenance. No painting is required. The unsightly problems of rust staining and mortar cracking due to corrosion are eliminated.

Cost Competitive. Eliminating the cost of initial painting and the cost of repeated painting over the life of the home, galvanizing is the choice for corrosion resistant protection.

INTEGUMENT TECHNOLOGIES, INC.

70 Pearce Ave
Tonawanda, NY 14150
Ph: 716.873.1199
Fax: 716.873.1303
info@Integument.com
www.Integument.com

Integument Technologies is a science-based developer and manufacturer of engineered fluoropolymer systems of linings, films and coatings. Applications include pipe/tape wraps, specialty coatings and linings for secondary & primary containment applications and aerospace lightning strike protection, and paint-replacement.



Proprietary technologies include plasma surface treatment, composite system designs and welding processes. Our core competencies lie in fluoropolymer materials, corrosion systems engineering and plasma treatments.

ITW DEVCON ENGINEERED COATINGS

30 Endicott Street
Danvers, MA 01923
Ph: 978.777.1100 or toll-free: 800.933.8266
Fax: 978.774.0516
jstewart@devcon.com
www.devcon.com

ITW Devcon Engineered Coatings offers an advanced line of room-temperature-curing protective coatings available in sprayable, trowelable, and brushable formulations. They protect against chemicals, corrosion, high temperatures, impact and abrasion. The company has a network of engineers with the expertise to handle specific coating problems. Specialists will analyze the customer's needs and formulate a detailed plan to maximize the cost-effectiveness, performance, and service life of a recommended coating. When necessary, these experienced technicians will develop a specialty product or perform periodic inspections. Products include Iraseal 200, a resilient polyurea coating formulated to protect surfaces subject to long-term immersion and weathering; Irathane 155, a polyurethane coating with a high-slip finish for protecting dry-material screens, bins, and hoppers in addition to coagulator tanks, clarifier tanks, etc; and VE 9300, a glass-flake novolac vinyl ester lining system that withstands long-term exposure to caustic gases in applications such as flu gas desulfurization.



METAL COATINGS INTERNATIONAL INC.

275 Industrial Parkway
Chardon, OH 44024-1083
Ph: 440.285.2231
Fax: 440.279.1483
sales@metal-coatings.com
www.metal-coatings.com

Metal Coatings International Inc., (MCII), is a developer of Water-Based Coating Technology, including proprietary corrosion-resistant coatings, sealers, and topcoats.

Our DACROMET and GEOMET coatings offer the galvanic (self-healing) properties necessary for a variety of applications. Our coatings are thin, water-based, inorganic corrosion-resistant coatings comprised primarily of zinc and aluminum flakes. Combined with our sealers, the DACROMET and GEOMET coating systems have been selected as a preferred metal finish by leading automotive and construction engineers for 25 years. These coatings have exceeded 1000 hours SST, 120 cycles GM 9540P and 100 cycles APGE, all accelerated corrosion tests required by automotive companies that have become the standard in the coatings industry.



Our coatings are applied to fasteners by immersion using conventional Dip-Spin coating equipment. Larger sized parts can be treated by the spray method. Advantages of coatings include bimetallic corrosion resistance with aluminum, solvent resistance, hydrogen embrittlement-free processing and four-way corrosion protection (barrier protection, galvanic action, passivation, and self-repairing properties). They have been used as a cost-effective replacement for galvanizing (both hot-dipped and mechanical), and cadmium and electro-zinc plating due to their environmentally friendly composition, corrosion protection and engineered lubricity levels.

PRODUCT HIGHLIGHTS

Galvanizing, Coatings and Fire Protection Products

PPG HIGH PERFORMANCE COATINGS

One PPG Place 37 South
Pittsburgh, PA 15272
Ph: 412.434.4141
Fax: 412.434.3991
simser@ppg.com
www.ppgaf.com

PPG High Performance Coatings manufactures and markets a full range of coatings to fill every possible application and end-use requirement for steel and/or galvanized steel. Whether your coatings requirements call for zinc-rich primers, fast-dry alkyds and acrylics, chemical-resistant epoxies, high-durability urethanes and air-dry fluoropolymer coating, or intumescent fireproofing, PPG High Performance Coatings should be your first call. Visit our website for further information or call 800-441-9695.



THE SHERWIN-WILLIAMS COMPANY

Paint Stores Group
101 Prospect Avenue N. W.
Cleveland, OH 44115-1075
www.shermanwilliams.com



Sherman-Williams Industrial and Marine Coatings group recently added Fast Clad DTM Urethane to its ExpressTech coatings family. The new single-coat, direct-to-metal

urethane equals the performance of conventional epoxy/urethane systems.

An aliphatic polyurea, Fast Clad DTM Urethane outperforms conventional urethanes because it can be applied at 6 to 9 mils DFT in a single coat with no outgassing or pinholing. Conventional urethane systems can be applied at only 2 to 3 mils DFT, so more coats are required to achieve adequate substrate protection. Using one coat instead of two minimizes the high cost

of hourly labor, and the coating's fast-dry formulation helps speed jobs to completion. Fast Clad DTM Urethane can be applied with airless spray equipment, brush or roll, and has a two-hour pot life. It can be recoated in two hours, a feature sure to broaden its appeal in industrial markets and fabrication shop applications.

TNEMEC COMPANY, INC.

6800 Corporate Dr.
Kansas City, MO 64120
Ph: 816.483.3400
Fax: 816.483.3969
thomas@tnemec.com
www.tnemec.com

There is growing evidence that the structural integrity of many buildings is being compromised due to corrosion on uncoated steel. Tnemec Company has introduced Series 394 Perimeprime, a high-performance primer designed to bond with the most popular types of fireproofing while providing outstanding, long-term protection to structural steel. Perimeprime's tenacious adhesion to steel that has received an SSPC-SP3 Power Tool Cleaning keeps costs low, and its tolerance to a wide range of environmental conditions keeps jobs going on time.

PRODUCT CASE STUDY WTC Temporary PATH Station

Michael H. Zilnik

Design and construction of the temporary Port Authority Trans-Hudson (PATH) Station for the Port Authority of New York and New Jersey began with a sense of urgency. Permanent redesign and construction of the new stations, tunnels and tracks for the 1 and 9 subways and the PATH system was to be a long process. However, it was essential to present improvements to the PATH station at Ground Zero before the first anniversary of 9/11/2002.

The temporary design calls for three tracks, a platform and a rebuilt underground station for the PATH trains entering lower Manhattan. Steel columns, which stub off about a foot above the roof of the station, are designed to support a wide range of redevelopment options above-ground.

AISC-member Canron Construction Corp. of Conklin, NY subcontracted about 1450 tons of the structural steel order. The order was placed in late April 2002 with deliveries to begin in August. Typical column sizes were W 14 x 257, with 18", 24", and 30" beams located on the platform level and the roof. Connections were standard beam-to-beam shear connections, with double-angle vertical bracing.

Port Authority specs called for a three-coat paint system: organic zinc-rich primer, epoxy intermediate coat and aliphatic polyurethane finish coat. **Sherwin Williams Zinc Clad IV, Macropoxy and Hi Solids Polyurethane coatings**

were utilized. In accordance with Port Authority specifications, the company provided a technical advisor during the project start up.

Bridgewater Protective Coatings, Inc. (BPC), of Bridgewater, NJ, applied the coatings. BPC's 50,000-sq.-ft facility can process, sandblast and paint a large order in just hours. The company also has a 40,000-lb. crane capacity indoors and a 100,000-lb capacity outside.

The paint had to be applied within a few hours of sandblasting, before oxidation began. Minimum cure times had to be allowed between coats, since successive coats could not be applied until the previous coat had dried, and



the finish coat had to cure sufficiently to load the steel without damaging the coating.

BPC loaded the steel onto trailers with special care. About 100 fabricated pieces were placed on each trailer with special nylon straps to avoid damage to the coating.

The project's high profile and accelerated erection schedule pushed the coating of all 67 truckloads of steel to completion in just eight weeks—seven weeks less than originally quoted. BPC facilitated the speed-up by scheduling two 12-hour shifts daily. The time constraint was pressing in view of the complex coordination between fabrication, sandblasting, the application of each coat of paint, and erection.

The PATH coated-steel order is fitting up well at the site, according to general contractor Yonkers/Tully/Pegno, A Joint Venture. The construction is considered fairly standard, with beam and two-tier columns plus three levels of framing.

Deliveries of the coated structural steel began to arrive at the site in August 2002, well before September 11. Observers at the steel mesh of the south-viewing platform could see the first of the columns going into place—a small triumph in the face of tragedy.

Michael H. Zilnik is a project manager at the WTC Temporary PATH Station. He is a product manager for AISC-member Canron Construction Corporation of Conklin, NY.

PRODUCT HIGHLIGHTS

Galvanizing, Coatings and Fire Protection Products

VOIGT & SCHWEITZER, INC.

1000 Buckeye Park Road

Columbus OH 43207

Ph: 614.449.8281

Fax: 614.449.8851

TerryW@Hotdipgalv.com

www.hotdipgalvanizing.com

Voigt & Schweitzer, Inc. is part of the largest galvanizing company in the world. This year will mark 72 plants, with the opening of V&S Taunton Galvanizing, in Taunton, MA. The company will see the V&S Lebanon Galvanizing facility open their Duplex Coating line in Jonestown, PA. This plant is the largest duplex coating facility in North America with over 175,000 sq. ft under one roof, and specializing in the COLORZINQ process of applying paint over hot dip galvanizing. This system has proven to be successful, with over a decade of performance in the United States.

The demand for luncheon seminars given for architects, departments of transportation and steel fabricators will reach a milestone this year, nearing 20,000 individuals who have participated in this program since it began in 1992. The web site www.hotdipgalvanizing.com is updated weekly.