

# HERNON® MANUFACTURING, INC.

High Performance Adhesives and Precision Processing Solutions

### PRODUCT GUIDE

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HERNON® Manufacturing has been committed to delivering TOTAL SOLUTION including world class high performance adhesive, sealant, coatings and impregnation resins along with precision processing equipment including parts loading, dispensing, vision inspection and curing system for nearly four decades.

A long-time member of Central Florida's industrial manufacturing community, HERNON offers strong brands and technologies, all made in the United States, for a diverse range of industries including: Energy/Power Generation, Medical, Electronics, Electrical, LED, Automotive, Appliances, Sporting Goods, Ammunition, Communications, Aerospace, Aviation, High Tech Audio, Defense, Fire Suppression, Transportation, and Marine. HERNON Manufacturing is proud to be an ISO-9001, ITAR registered company whose products meet or exceed Mil-Specs.



HERNON® Manufacturing has been recognized as a top company in Orlando and is listed in the Orlando Business Journal's Book of Lists. The company also was awarded the 2012 ThinkGlobal, Exporter of the Year, and named one of Florida's Top Companies to Watch in 2012, and has received the 2012 William C. Schwartz Industry Innovation Award for its advanced process for ammunition sealants. Visit www.hernon.com for more information.

Hernon's world headquarters is located in Sanford (Orlando), Florida, USA - a high-tech community developing aerospace, power generation, electronic, and optical solutions for the world. This region is also the birthplace of America's presence in space through Cape Canaveral. This location allows our Research and Development team an opportunity to work side-by-side with other companies developing cutting-edge technology.

Hernon® Europe was launched in 2005 to expand market presence in Europe. Hernon South America was established in 2007 to support marketing efforts. In September 2010, Hernon entered into a joint venture with SHENZEN DOVER TECHNOLOGY CO. LTD. to formalize HERNON DOVER, with the primary goal to distribute Hernon's extensive product line throughout China. Hernon currently has thirty-seven repackaging/manufacturing plants and/or distributors worldwide such as HERNON REDELEASE in Brazil, HERNON DIFFUSION in India and HERNON KOREA. Hernon is planning to establish more international branch offices in the near future.

Hernon's successful growth can be attributed to products, standards, and services that meet or exceed the rigorous manufacturing and safety requirements demanded by worldwide customers. Today, Hernon® is a worldwide innovator of high performance adhesives, sealants, and precision dispensing equipment, supplying top-notch quality of High Performance Adhesives and Sealants at very competitive prices.

In 1999, Hernon® Manufacturing's Quality System was registered as ISO-9001:2000 compliant. Including the initial certification, Hernon® has maintained biannual inspections without any record of a non-conformance. Many of Hernon's Adhesives, Sealants, and Impregnation Resins meet or exceed the stringent qualifications of the United States Military Specifications.

HERNON® products have gained the approval of "GSA" (Purchasing Agent for the US Defense Department), Martin Marietta, General Dynamics, Federal Mogul, Ingersoll Rand, Ford Aerospace, Lockheed Missile, Northrop, McDonnell Douglas, Frigidaire-Poulan, Copeland, TI Group Automotive Systems, GE, Thomas & Betts, John Deere, Watts Regulators, Volvo Penta, Ballard Power Systems, Wilson Sporting Goods, Peterbilt, Kenworth, General Electric, GKN, Case New Holland, Bose, etc., just to name a few.

Beginning its third decade, Hernon® Manufacturing Inc. remains committed to provide "Innovative Solutions for Mechanical Problems" well into the 21st century.





# Sealants

#### **Nuts N' Bolts: Threadlocker**

Nuts N' Bolts replaces expensive locking methods such as lock and split washers while improving the reliability of metal threaded fasteners. Nuts N' Bolts are single-component 100% active adhesives that cure when air is omitted between the mating surfaces of a metal nut and bolt providing you the choice of a low, medium, or high strength locking torque. Nuts N' Bolts locks, seals, and prevents corrosion of the threaded assembly.



Uses: Adjustment screws: Set screws: Motor housing studs

### **Dripstop: Anaerobic Pipe Sealant**

Dripstop™ replaces expensive, hard-to-use Teflon® tape to seal threaded components. Dripstop™ provides an instant seal then hardens to secure assemblies. Dripstop™ are single-component,100% active sealants that cure when air is omitted between the mating surfaces of threaded pipe fittings. Unlike Teflon® tape, excess Dripstop™ dissolves to eliminate damage to hydraulic system components, while the sealant in the threads will cure to provide a chemical and temperature resistant, high performance seal.



Uses: DEF Systems, Fuel line fittings: Hydraulic systems: Machine tools

### Powerseal: Non Hardening, instant Seal Pipe Sealant

Powerseal<sup>™</sup> is a single-component, non-hardening pipe sealant that seals instantly to more than 5000 psi (3/8" std. NPT pipe fittings at hand tight, two full turns). It prevents galling by lubricating threaded pipe connections and O-rings. Powerseal<sup>™</sup> is non-toxic, non-volatile, non-migrating, and does not shred to prevent system contamination. Powerseal<sup>™</sup> is non-hardening, which provides easy disassembly and repair.



Uses: Waste treatment plants: Textile equipment: Air compressor hose: Fuel lines

### Self Seeler: Pre-Applied Thread Sealant

Self Seeler™ is a dry-film thread sealant. Pre-applied as a liquid, Self Seeler then air dries to a tough, resilient coating providing pressure resistance up to 10,000 psi and reuseability up to 8 times. Self Seeler increases assembly speed and improves quality by removing the dispensing function from the assembly line.



Uses: Compressor pipe plugs: pressure gauges: rear axle filler plugs

### **Self Locker: Pre-Applied Thread Locker**

Self Locker<sup>TM</sup> is a pre-applied anaerobic thread-locking adhesive. Self Locker<sup>TM</sup> is contained in micro-encapsulates that are applied to the threaded fastener. The Self Locker<sup>TM</sup> stays dry to the touch, until the shearing action of thread engagement breaks the microcapsules providing you the choice of a low, medium, or high strength locking torque. Self Locker<sup>TM</sup> locks, seals, and prevents corrosion of the threaded assembly.



Uses: Head bolts: Truck axle bolts: Transmission nuts

### **Gasket Replacer: Anaerobic Gasketing Compound**

Gasket Replacer<sup>™</sup> replaces costly and insufficient paper or cork gaskets. An anaerobic adhesive, Gasket Replacer<sup>™</sup> provides superior metal-to-metal sealing while withstanding vibration and flexural stress. Gasket Replacer<sup>™</sup> forms solvent and temperature resistant gaskets that seal damaged surfaces instantly.



Uses: Cover housings on gear reducers: Fuel and water pumps



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# Adhesives

### **Silastomer: Silicone Adhesive**

Silastomer<sup>™</sup> is a line of flange gasket and sealing silicones. Silastomer<sup>™</sup> offers excellent moisture resistant sealing and large gap fill. Silastomer<sup>™</sup> is available in acetoxy cure for general-purpose usage and oxime cure for electrical and electronic components.

Uses: Pump and compressor gaskets: Humidifier gaskets



### Hernon Anaerobic Structural Adhesives (HASA): Structural Adhesive

Hernon Anaerobic Structural Adhesives (HASA<sup>™</sup>) are characterized by toughness and durability. HASA<sup>™</sup> featuring high impact, excellent peel, and quick cure times, remains a liquid on mating surfaces until assembly. The exclusion of oxygen at the bond line starts the curing process.

Uses: Speaker magnets: Fans to shafts (motors): Stem ware



### ReAct: Two Part Structural Acrylic Adhesive

ReAct™ feature the speed, versatility, and incredible shear strength of acrylic adhesives.

ReAct™ offer high peel and flexure strength in a convenient two-component, no-mix system.

Dissipator™ products also provide thermal conductivity and electrical insulating properties for an alternative method of mounting heat-arresting devices on power-handling integrated circuits.

Uses: Utensil handles: Grips: Magnets for motors: Fuel pump parts



### **Tuffbond: Single Component & Two Part Adhesive**

Tuffbond™ epoxies present a full selection of single and two component adhesives. Hernon Tuffbond™ epoxies give superior strength, moisture, chemical, and heat resistance. Cure mechanisms include two-component reactive cure, two-component reactive and ultraviolet cure, and single component heat or ultraviolet cure.

Uses: Deep potting: Motor components: Laminates and "gel" coats



### Fusionbond: Two Component Structural Adhesives

Fusionbond<sup>™</sup> creates bonds stronger than steel. In laboratory tests, Fusionbond<sup>™</sup> bonds outlasted steel strips in shear strength tests. Fusionbond<sup>™</sup> is a two-component, modified methacrylate structural adhesive for bonding wood, metal, thermoplastics, and fiberglass, composite assemblies. Fusionbond<sup>™</sup> resists chemicals and salt and temperatures up to 300° Fahrenheit.

Uses: Sign components: Underwater repairs: Structural Bonding



### **Instantbond and Quantum: Rapid Cure Adhesive**

Instantbond<sup>™</sup> and Quantum<sup>™</sup> are cyanoacrylate adhesives that provide instant bonding on a wide variety of surfaces. Hernon offers classic ethyl and methyl types along with special toughened (flexible), surface insensitive, low odor (low blooming), and oily surface bonding formulations. Instantbond<sup>™</sup> and Quantum<sup>™</sup> viscosities range from very low to gel consistency providing unequaled chemical resistance and temperature resistance up to 250° Fahrenheit.

Uses: Toys: Sporting goods: Electronic components







# Specialty Adhesives

### **Hernon Porosity Sealant (HPS)**

Hernon Porosity Sealant (HPS) seals micro-porosity in die cast powdered metal, electronic, and many other components. Applied using vacuum equipment, it seals the leak paths inherent in metal grains. Hernon Porosity Sealant (HPS) eliminates "leakers," permits superior plating and painting, and improves the machinability up to 500%, improving cutting tool life up to 10 times. Uses: Pump and compressor gaskets: Humidifier gaskets



### **Ultrabond**

Ultrabond adhesives remain uncured until exposed to ultraviolet light. Ultrabond adhesives cure on-demand with superior bond strength, excellent gap filling ability, and temperature resistance up to 400° Fahrenheit. The broad range of Ultrabond adhesives offers many solutions for high speed production applications including ultraviolet cure and poly cure (heat, ultraviolet, and activator) Uses: Speaker magnets: Fans to shafts (motors): Stem ware



### **Cylinlock**

Cylinlock is an anaerobic adhesive designed for metal cylindrical components. Cylinlock is used to maximize integrity on new assemblies or repair worn shafts and bearings as well as bond and seal assemblies. Cylinlock cures in the absence of air between mated cylindrical surfaces, providing up to 5000 psi of shear strength.



Uses: Utensil handles: Grips: Magnets for motors: Fuel pump parts

### **EF Primers & Cleaners**

Environmental Friendly (EF) Surface Preparation Products. EF Primers are used to activate inactive surfaces, offset low temperatures during application, and generally enhance the cure speed of anaerobic adhesives. EF Accelerators greatly expand the gap fill capability and reduce the fixture times of cyanoacrylate adhesives. EF Cleaners are used to clean and degrease parts, clean out dispensing equipment, and dissolve and remove cured cyanoacrylate from parts and work surfaces.



Uses: Deep potting: Motor components: Laminates and "gel" coats

### **Military Specifications**

Hernon produces fully compliant to the following military specs:

| "Letter" Grade Anaerobic      | MIL-S-22473E | ASTM-D5363 Standard |
|-------------------------------|--------------|---------------------|
| Thread Locking Anaerobic      | MIL-S-46163A | ASTM-D-5363         |
| Anaerobic Retaining Compounds | MIL-R-46082B | ASTM-D-5363         |
| Cyanoacrylates                | MIL-A-46050C | A-A3097             |
| Silicone Adhesives            | MIL-A-46106B |                     |
| Vacuum Impregnation Sealants  | MIL-I-17563C | .QPL-17563          |
| Vacuum Impregnation Sealants  | MIL-STD-276  | QPL-17563           |

National Sanitation Foundation (NSF) - Underwriters Laboratory (UL)



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### **Ultraviolet Light (UV) Curing Equipment**

Hernon can provide a full range of ultraviolet light (UV) curing equipment including bench-lamps, conveyorized systems, and spot-cure systems. Each UV light is designed to emit maximum energy in the optimum spectrum to cure UV. Hernon's UV curing equipment are state of the art and are perfect for many applications that necessitate fast curing times.



### **Autobonder Dispensers**

Hernon Autobonders are a complete line of dispensers for dispensing any liquid including paste. Autobonder dispensers range from bench-top, low production volume dispensers to high output dispensers designed for integration into turnkey assembling systems. Autobonders offer time accuracy to 0.001 seconds.



### **Sureshot Dispensing Valves**

Hernon Sureshot dispensing valves are designed to dispense any liquid. Sureshot valves feature snuff-back technology to prevent stringing of material, and normally-closed design to prevent dispensed material during interruptions of air pressure. Hernon also offers positive-displacement and diaphragm valves.



### RotoCoater Dispenser

The Hernon RotoCoater is a non-contact dispensing unit designed to apply sealant or adhesive to a recessed area. The customizable RotoCoater dispenser can be used as part of a stock dispensing system for a single bore application, or as part of a turn-key, complete dispensing solution to apply material to multiple bores simultaneously.



### **Custom Dispensing Systems**

Hernon can design, build and install a custom turn-key dispensing and sealing system for any manufacturing situation or environment imaginable. Hernon's custom sealing and dispensing systems are capable of either sealing, parts loading, dispensing, vision inspection and curing systems for a wide variety of materials and a wide variety of industries.



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### **HERNON AUTOSEALER 5500 Robotic Dispensing System**

Perfect for production lines, the Autosealer 5500 is capable of dispensing micro-precision beads of UV anaerobic sealant within an infinate type of production environments.





### **HERNON AUTOBONDER 2700**

Two component mixer with a variable dispensing ratio and an infinite mixing ratio. Also perfect for a multitude of production environments. "Your Total Solution"



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