



VELTEK ASSOCIATES, INC.

TECHNICAL DATA FILE



Clean & Sterile Documentation Made Simple

Core2Print[®], Core2Write[®], and CleanPrint 10[®]



Assure Sterility and Eliminate Fibers and Particulates from Cleanroom Documentation



The Writing Substrate



The Custom Documentation



The HEPA Filtered Printer System

What is the Industry Problem?

Items that shed fibers or particulates can rein havoc in any aseptic GMP operation. Airborne fibers and particulates can come to reside on surfaces throughout the cleanroom that may include product contact surfaces. If this happens, such contaminants can then subsequently corrupt final product. Recent industry trends have shown an increase in the detection of such contaminants and have been documented in worldwide regulatory observations. Assuring product contact surfaces are free of these contaminants is the main concern for any firm. Contaminated sources may include bulk product tanks, tubing, assemblies, filling machine surfaces, stopper bowls, turntables, conveyers, personnel, open vials, and open syringes to name a few. If such contaminants are found in post fill inspections or at worse case in the marketplace, the cost to a manufacturing firm is enormous.

Most GMP firms have a constant struggle with the task of reducing fibers, particulates, and microorganisms in classified areas. One source is paper products used to document operations. Characteristically, paper products shed a high level of fibers and particulates. While many forms have attempted to institute electronic batch records, the need for writable documentation in many venues beyond the electronic scope is ever present. Coupled with the particulate and shedding, the contamination problem has been assuring that such paper products are rendered sterile prior to their entry to the controlled environments.

One source that can be easily reduced in fibers and particulates is cleanroom documentation systems used in manufacturing areas. Items such as paper, tags, logbooks, labels, notebooks and batch formulas are normally printed on cellulose paper or fiber bonded and coated material. These materials shed fibers and harbor particulates that can corrupt environmental conditions. The concern for the reduction and hopeful elimination of such contaminants requires firms to conduct stringent evaluations of their systems and products deemed suitable for use in the controlled environments. The problem does not stop at the firm's manufacturing location and requires further supply chain evaluations.

How can the Core2Write, Core2Print, and CleanPrint 10 help?

Veltek Associates, Inc. is one of the leading innovation companies supplying the pharmaceutical, biotechnology, healthcare and lab animal marketplace. Our newly patented CleanPrint 10, Core2Write, and Core2Print address and solve questions surrounding particulate and fiber shedding in clean room documentation systems. Through the use of our patented CleanPrint 10 synthetic substrate, we have provided the vehicle to assure documentation is printed on non-particulating, non-shedding plastic substrate whereby the printing mechanism and the ink used also do not shed and are chemically resistant. So where cleanroom documentation is required, VAI has an innovative solution. The Core2Write® product line is customized uniquely for each company. The Core2Write® System captures internal documents of the firm, preprints the required items (such as logbooks, tags, labels, and forms) on the chemically resistant CleanPrint®10 synthetic plastic paper, and can couple the integration of our patented RFID and/or barcoding sealed into the CleanPrint®10 synthetic plastic paper. Subsequent quadruple packaging followed by validated sterilization via gamma irradiation makes these options extremely viable for aseptic operations. The Core2Print is a patented cleanroom printing device that prints on to quadruple bagged sterile CleanPrint 10 synthetic plastic paper, within a sealed HEPA filtered stainless steel, movable cabinet within the aseptic core.

What are CleanPrint 10, Core2Write, and Core2Print?



CleanPrint 10 is a patented synthetic substrate that is used as the base for all Core2Write products and used as the printing medium for the Core2Print. CleanPrint 10 is exceptionally durable and the adhesive bonds that comprise the material are as much as 10 times stronger than other synthetic substrates. CleanPrint 10 is pliable, is resistant to abrasion, is resistant to chemicals, and is resistant to ink smearing. CleanPrint 10 contains no cellulose and is extremely low in particle shedding. Each page is individually vacuumed and printed both front and back with a 10% screen of light blue so that end users can identify that CleanPrint 10 is in use as opposed to regular paper. CleanPrint 10 is far more advanced than other comparative products in the marketplace. It is packaged VAI's patented ABCD Cleanroom Introduction system, which quadruple bags each ream of paper for easy introduction to the aseptic core.

* See below for specifications and additional features.

Core2Write® is a customized product specifically made for your organization. The patented technology provides the ability to print most any preprinted documentation requirements such as forms, logbooks, two-part tear tags, single tags, labels, and signs. But the Core2Write® goes far beyond preprinting customized documentation. The system provides the ability for imbedded RFID in each item that can provide tracking information. It also provides the ability to number each form, logbook, two-part tear tag, single tag, label, or sign with a unique number and unique barcode. The system further assures that stepping marks are incorporated into logbooks in order to assure integrity for removal of pages and lamination of item covers to provide additional strength.

* See below for specifications and additional features.

Core2Print® is a patent pending technology that revolutionizes the method for printing required sterile documentation within aseptic manufacturing environments (Grade A, B, C and D). The Core2Print® unit is constructed of 316L stainless steel for durability and Lexan windows for a clear view of the printer in operation. HEPA filtration at 99.997 to the cabinet is a mandatory feature while positive pressure to the cabinet is equally filtered to the controlled environment. The contained printer emits no particulate and assures ink is dried and chemically resistant prior to exit from the unit. The CP10 printer, which is, housed in the cabinet, wirelessly prints onto VAI's pre-sterilized CleanPrint 10 synthetic paper (synthetic plastic); the most durable in the industry. This assures remote printing to the core without concern for contamination.

* See below for specifications and additional features.

Document, Write, Identify, Label, and Print with Customized Sterile Supplies in Grade A/B



O V E R V I E W





Product Overview: CleanPrint 10 Synthetic Paper

CleanPrint® 10 is the base material used in the custom design of the Core2Write® products. It is also the base material used in the Core2Print® Cleanroom Printing System. CleanPrint 10 is designed for ultraclean manufacturing environments and is void of any cellulose in its construction. The synthetic substrate is manufactured using patented technologies to assure strength, very low particulate generation, non-shedding characteristics, inability for ink smearing, chemical resistance and the ability for lamination. CleanPrint® 10 substrate combines the strength and dimensional stability of polyolefin with the absorbency of silica to form a unique microporous matrix. The result is a range of durability benefits not available from competing synthetic paper stocks.

Features and Benefits

- **Uses:** CleanPrint® 10 is made for use in the Core2Print® cleanroom printing system and is the best mechanism to assure the cleanest print and bonding available. However, the substrate can also be used with a multitude of printers including laser, ink jet, ribbon, dot matrix, and toner.
- **Packaging:** Sterile CleanPrint® 10 is packaged into reams of paper that are quadruple bagged in VAI's ABCD Cleanroom Introduction System®.
- **Durability and Strength:** CleanPrint® 10 is exceptionally durable and the adhesive bonds that comprise the material are as much as 10 times stronger than other synthetic substrates. Polyolefin provides CleanPrint® 10 substrate with the rigidity and reinforcing strength of plastic, while microporosity allows it to remain lightweight and flexible in a broad array of processing and service conditions.
- **Adhesion of Inks:** CleanPrint® 10 is pliable, is resistant to abrasion, is resistant to chemicals, and is resistant to most ink smearing (no smearing in the Core2Print®). The synthetic material base includes a microporous structure for accepting, adhering, and drying ink immediately. The tiny holes in the CleanPrint 10® substrate readily absorb inks and toners to ensure brilliant color reproduction and to lock-in printed text, graphics and photos nearly instantaneously. The polyolefin base helps the material retain form when submerged in or exposed to water, enabling it to meet [British Standard \(BS\) 5609 for immersion-labeling](#) testing.
- **Ink and Toner Protection:** Inks and toners absorb into CleanPrint 10 substrate's microporous matrix, locking printed text and graphics into its surface and making them nearly indestructible.


- **Abrasion- and Scuff-Resistance:** CleanPrint 10 assures printed text and graphics cannot be scratched or rubbed off the surface of CleanPrint 10 substrate without destroying the material itself. This print permanence results in tamper-evident/tamper-resistant performance without the need for laminates or protective coatings.
- **Water-Resistance:** Polyolefin is hydrophobic, which causes CleanPrint 10 substrate to repel water. This enables CleanPrint 10 substrate to meet British Standard (BS) 5609 for immersion-labeling testing, which includes detailed durability criteria for print permanence, adhesive strength and abrasion-resistance for water-exposed labels.
- **Chemical-Resistance:** CleanPrint 10 substrate withstands exposure to a variety of chemicals and solvents and can even be dry-cleaned. Most other synthetic papers require a coating to perform as well as CleanPrint 10 substrate does without enhancement. Inorganic acids generally have little effect on the dimensions and mechanical properties of CleanPrint 10 substrate even at elevated temperatures (e.g., 122°F / 50°C). Certain organic acids can cause swelling of the polymer. Strongly oxidizing acids, e.g., concentrated nitric and fuming sulfuric acids, will attack the polymer phase and lead to embrittlement and loss of properties of CleanPrint 10 substrate. Hydrofluoric acid will dissolve the silica filler leading to shrinkage of product. A portion of the filler in CleanPrint 10 HD substrate grade is acid sensitive; therefore, these grades are not recommended for contact with acids. Aqueous solutions of acidic or neutral salts generally do not affect the dimensions or physical properties of CleanPrint 10 substrate.

Bases with a pH less than approximately 8.5 have little effect on the dimensions of CleanPrint® 10 substrate. Alkali bases (e.g., sodium or potassium hydroxide) with a higher pH or elevated temperatures will attack the silica filler and lead to shrinkage as the silica is removed from the sheet. Elevated temperatures may also lead to dimensional changes with weaker bases.

Polar solvents, e.g., alcohols and esters, typically have little to no effect on the dimensions or physical properties of CleanPrint® 10 substrate. Some discoloration has been noted when highly colored impurities in such solvents are absorbed on the silica in CleanPrint® 10 substrate. Chlorinated organic and aromatic solvents -- generally the most aggressive organic solvents -- cause swelling of CleanPrint® 10 substrate and some loss of tensile properties.

Results of chemical exposure testing are reported below. PPG Industries presents this data for guidance in the use of CleanPrint 10 substrate. Samples should be tested under actual or simulated use conditions to confirm the stability of CleanPrint 10 substrate in the proposed environment.

- **Thermal stability:** CleanPrint 10 substrate remains pliable in temperatures from -70°C/-94°F to 180°C/356°F, even during prolonged exposure or rapid temperature change. Unlike CleanPrint 10 substrate, other synthetics can become brittle or melt when exposed to elevated temperatures such as those generated by desktop laser printers.
- **Tear-Resistance and Conformability:** The flexibility of CleanPrint 10 substrate enables it to resist tearing and to conform to pointed, rough and uneven surfaces or fluid-filled bags.

- **Sterilization-Compatible:** CleanPrint 10 substrate withstands various sanitization methods, including steam cleaning and gamma radiation.
- **Temperature Attributes:** CleanPrint 10 is pliable in extremely cold temperatures (can be cryogenically frozen) and able to survive heat of up to 180°C (356°F) even when exposed to rapid fluctuations in temperature that can cause other synthetic substrates to fail.
- **Lamination- and Finish-Friendly:** CleanPrint 10 substrate bonds with laminate films when either the adhesive or the laminate itself flows into its pores, enhancing the durability of the material. Due to the unyielding strength of the resulting mechanical bond, edge-sealing isn't required and CleanPrint® 10 substrate is able to withstand punishing finish processes such as perforating, punching, folding, sewing, grommeting, foil stamping and embossing without cracking.
- **No Cellulose:** CleanPrint® 10 contains no cellulose and is extremely low in particle and shedding features.
- **Color:** Printed with a 10% light blue screen in a bleed edge fashion on both sides to further trap possible contaminants and provide a mechanism for operators to know the correct paper is in use.
- **Ability to Write:** Excellent ability to write features that include writing while the substrate is wet.
- **ESD:** Low ESD potential for reduced risk of electrostatic damage.
- **Recycle:** To assure a “Green” Environment, the substrate recycles as a plastic .
- **Thickness:** 10 mil/254 micron
- **Regulatory Compliance:** When used as intended, CleanPrint® 10 Food-Grade substrate is fully compliant for single- and repeated-use applications under U.S. Federal Food and Drug Administration (FDA) and all applicable U.S. food-additive regulations as a food contact material. The substrate also is fully compliant with all type of food and under all conditions of use for it is technologically suitable and is not limited by food type, amount of material used or operating conditions.
- **Moisture Resistance:** British Standard BS 5609 is a specification for printed pressure-sensitive or self-adhesive coated labels for marine use. Under the United Nations' Global Harmonization System (GHS) and the International Maritime Dangerous Goods (IMDG) code, chemical manufacturers transporting dangerous goods on international waters are required to meet BS 5609 specifications for labeling, which means requires that labels be able to withstand a three-month salt-water submersion test. Labels that are BS 5609-compliant are proven to meet stringent tests for durability and are suitable for use in harsh environmental conditions. CleanPrint® 10 substrate-based labels were tested to demonstrate conformity to BS 5609.



Material Specifications and Testing

Chemical Resistance of CleanPrint 10 Substrate at 70° F (21° C)					
	Conc.,	Contact	Effect on		
<u>Testing</u>	<u>%</u>	<u>Time, Hr.</u>	<u>Strength</u>	<u>Color</u>	<u>Dimension</u>
Nitric Acid	10	100	None	None	---
Nitric Acid	70	10	Some	Some	---
Phosphoric Acid	10	10	None	None	---
Hydrochloric Acid	37	1000	None	Slight	---
Sulfuric Acid	10	1000	None	None	---
Sulfuric Acid	96	1000	None	Slight	---
Ammonium Hydroxide	28	1000	None	None	Shrinkage
Sodium Hydroxide	40	1000	Some	None	Shrinkage
Methyl Ethyl Ketone	100	1000	None	None	---
Toluene	100	1000	None	None	Slight Swelling
Glycerol	100	1000	Some	None	Swelling
Ethyl Acetate	100	1000	None	None	---
Tetrahydrofuran	100	1000	None	None	---
Xylene	100	1000	None	None	---

Performance Characteristics		
Property	Typical Value	Test Method
Basis weight	172 g/m ²	Basis Weight Determination
Caliper	10.0 mil/254 um	Basis Thickness Determination
<u>Tensile Strength</u>		
Machine direction 2	7.0 kg	Federal Standards No. 191A: Methods 5102
Cross direction	2.9 kg	Federal Standards No. 191A: Methods 5102
<u>Tear Stength</u>		
Machine direction	110 g	Elmendorf tear test
Cross direction	Tore to MD	Elmendorf tear test
Opacity	98%	TAPPI Test Method T-425
<u>Surface Resistivity</u>		
Average at 12% RH (Ohms/sheet)	7.87 x 10 ¹²	Per EIA-531, between 1.0 x 10 ⁵ and 1.0 x 10 ¹² Ohms/sheet is static dissipative
Average at 50% RH (Ohms/sheet)	5.32 x 10 ¹⁰	Per EIA-531, between 1.0 x 10 ⁵ and 1.0 x 10 ¹² Ohms/sheet is static dissipative

Performance Characteristics		
Property	Typical Value	Test Method
Particles (>0.5 µm)	0.31 million particles/m ²	Adapted ASTM F311 - 08(2013)
<u>Ions</u>		
Sodium	200 ppm	Adapted ASTM D4191 - 08
Chloride	40 ppm	Adapted ASTM D512 - 12

24-Hour Solvent Resistance of CleanPrint 10 Substrate at 70° F (21° C)

Solvent	Effect On	
	Length	Thickness
<u>Preferred Solvents</u>		
Methanol	None	None
2-Propanol	None	None
n-Butyl Alcohol	None	None
n-Propanol	None	None
Acetone	None	None
Ethyl Acetate	None	None
Methyl Ethyl Ketone (2-Butanone)	None	None
Hexane	None	None
Petroleum Ether	None	None
Tetrahydrofuran	None	None
<u>Use Sparingly</u>		
n-Hexyl Alcohol	None	Slight
Methylene Chloride	None	Slight
Mineral Spirits	Slight	None
Toluene	Slight	None
Xylene	Slight	None
Kerosene	Slight	None
<u>Avoid if Possible</u>		
Glycerol	Some	None
Isobutyl Acetate	None	Some

Electrostatic Dissipation (ESD) Testing:

Surface Decay

<u>Surface</u>	<u>Static Decay Time at 12% RH (Seconds)</u>	<u>Static Decay Time at 50% RH (Seconds)</u>
CleanPrint 10	Does not decay	0.05
PVC	Does not decay	Does not decay
PET	Does not decay	Does not decay
PC	Does not decay	Does not decay

Per MIL-STD-3010 specification, acceptable static decay materials should exhibit static decay time of \leq 0.50 seconds when conditioned at 50% RH

Electrostatic Dissipation (ESD) Testing:

Surface Resistivity

<u>Substrate</u>	<u>Average at 12% RH (Ohms/sheet)</u>	<u>Average at 50% RH (Ohms/sheet)</u>
CleanPrint 10	7.87×10^{12}	5.32×10^{10}
PVC	5.52×10^{13}	4.93×10^{13}
PET	$>1.0 \times 10^{15}$	7.97×10^{13}
PC	4.8×10^{14}	6.50×10^{13}

Per EIA-531, between 1.0×10^5 and 1.0×10^{12} Ohms/sheet is static dissipative

Environmental Details and Instructions:	
CleanPrint®10 and the Environment:	While CleanPrint 10 substrate is a recyclable plastic material and is not considered biodegradable; it contributes to environmental stewardship by enabling our customers to produce durable products which conserve resources. Additionally, CleanPrint10 grades are manufactured under strict corporate guidelines for environmental compliance and waste minimization.
CleanPrint®10 substrate and the environmental ecosystem:	CleanPrint 10 does not contain any cellulose-based materials and does not contribute to forest harvesting. It is non-toxic and does not contain any ozone-depleting constituents.
Properly disposing of CleanPrint®10 substrate:	CleanPrint 10 substrate can be safely disposed of in a landfill and will not leach into ground water. It can also be incinerated in an atmosphere of excess oxygen. When burned, CleanPrint10 substrate yields water, CO2, energy, and a clean ash due to its silica filler.
Recycling CleanPrint®10 substrate:	CleanPrint 10 substrate is a highly filled polyolefin blend that is currently being recycled into general use bulk plastics such as plastic lumber, park benches, and industrial signs. It is classified as a 7 according to the voluntary container-coding system (7 = other resins or multi-resin polymers). Due to high filler loading and high molecular weight polymer matrix, CleanPrint 10 substrate requires a high intensity mixer such as a twin screw extruder for recycling with HDPE.
CleanPrint®10 substrate is free of heavy metals:	VAI certifies that there is no lead, cadmium, mercury, or hexavalent chromium added intentionally to CleanPrint 10 substrate. VAI further certifies that the incidental total concentration of the above metals does not exceed 100 ppm, putting CleanPrint 10 sheet in full compliance with the 1994 standards of the Coalition of Northeastern Governors' Model Toxic legislation (CONEG). CleanPrint 10 substrate also complies with the current ASTM F963-86 standard, Consumer Safety Specification on Toy Safety. VAI certifies that CleanPrint®10 substrate has no detectable quantities of either antimony or arsenic. Other metal analyses are available on request.
Toxicity:	Non-toxic
Ozone:	No ozone-depleting constituents
Composition:	65% by weight inorganic filler (silica – derived from sand)
Cellulose:	No cellulose-based material content – does not contribute to forest harvesting
Recycle Procedure:	Currently recycled into general use bulk plastics such as plastic lumber, park benches, and industrial signs(a class 7 material)
Disposal in Landfill:	Safely disposed of in a landfill –will not leach into ground water Incinerates in an atmosphere of excess oxygen to yield only water, CO2, energy, and a clean ash (from silica filler)
Compliance to CONEG:	Fully compliant with 1994 standards of the Coalition of Northeastern Governors' Model Toxic legislation (CONEG) relative to heavy metal content
Compliance to ASTM:	Fully compliant with current ASTM F963-86 standard, Consumer Safety Specification on Toy Safety – no detectable quantities of either antimony or arsenic



OVERVIEW





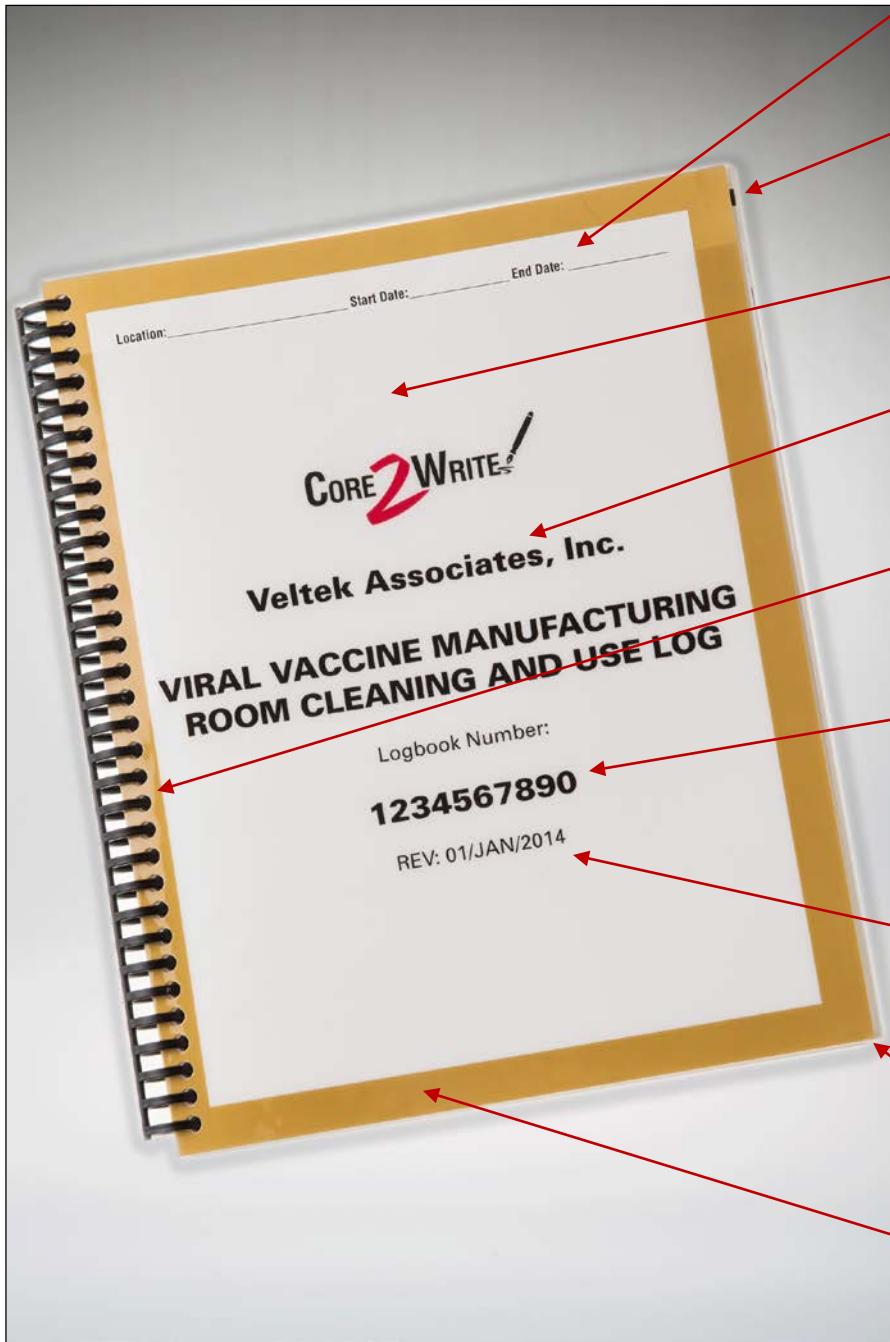
Product Overview

Core2Write® is a Patented Technology that revolutionizes the method whereby custom logbooks, one or two-part tear off tags, labels and forms used to document GMP operations and label or tag GMP containers or transfer cans/tanks/bottles in Grade A-D environments. The product line starts with a custom evaluation of what logbooks, forms, tags or labels are required. Once determined such documents and artwork are digitally designed into the product required, printed and RFID, and/or barcoding integrated.

Features and Benefits

- Core2Write products are printed on VAI's CleanPrint®10 synthetic plastic paper that cannot be torn and if torn does not shed particulates or fibers. VAI's CleanPrint 10 can be easily written on without smearing of the ink with most pens in the marketplace. (See VAI-PEN-01 for compatible pen ordering)
- Core2Write products can have RFID chips embedded into the material so that products can be designed per item and can be found with an RFID reader up to 60 feet away. Core2Write two part tear off tags can have RFID incorporated into both sides of the tag so that not only the product can be found but also the part of the tag used in documentation.
- Core2Write products can incorporate bar coding that incorporates a unique number per item.
- Core2Write logbooks, tags and labels can be fully or partially laminated for further strengthening. Label background colors and print colors are customized to meet requirements.
- Core2Write Logbooks are bound with a spiral bound, lay open technology so that opening to a particular page and writing is easily done.
- Core2Write logbooks, tags and labels can be individually numbered per item. This means in a case of logbooks, tags and labels each item has a unique number on the cover and pages.
- The CleanPrint 10 synthetic plastic paper is quadruple bagged (or bagged per customer requests), labeled with lot and expiration and sterilized via a validated gamma radiation cycle.

Core2Write Logbook Features



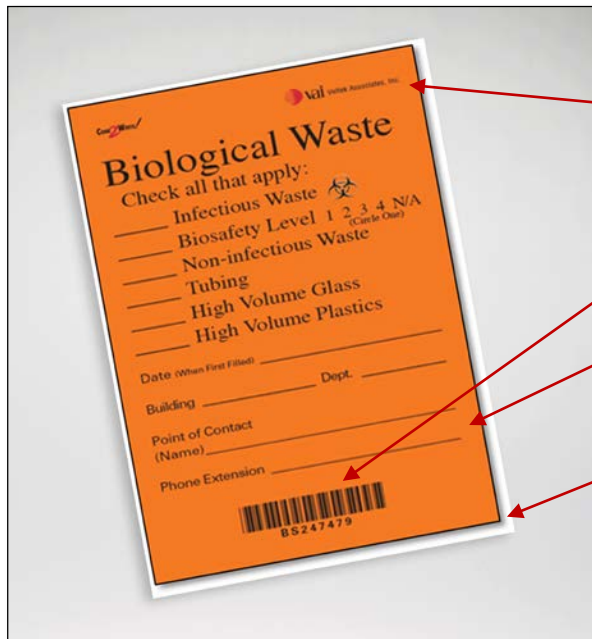
- Laminated hard front and back cover with easy write areas
- Stair Side Stepping so ripped out pages can be ascertained
- Imbedded RFID into the book
- Custom (firms document) printed on CleanPrint®10 substrate
- Non-shedding plastic spiral binding for easy lay flat opening
- Each Logbook in the case has a unique sequential number
- Bar Coding of each book
- Each page contains page number, REV date, SOP#, and logbook number
- Rounded corners to eliminate bending
- Available in thousands of colors and color schemes to assure distinguishing between books

Core2Write Two-Part Tag Features



- Two-Ply bonding for Strength
- Custom (firms tag) printed on CleanPrint®10 substrate
- Embedded RFID into the Tag
- Easy Tear perforations that will not shed
- Each Tag in the case has a unique sequential number
- Bar Coding of each tag
- Available in a hundreds of colors

Core2Write Label Features



- Custom (firms label) printed on CleanPrint®10 substrate
- Bar Coding of each label
- Available in thousands of colors
- Easy peel off non-shedding back
- Excellent adhesion
- Available in rolls and cut labels in any size



OVERVIEW





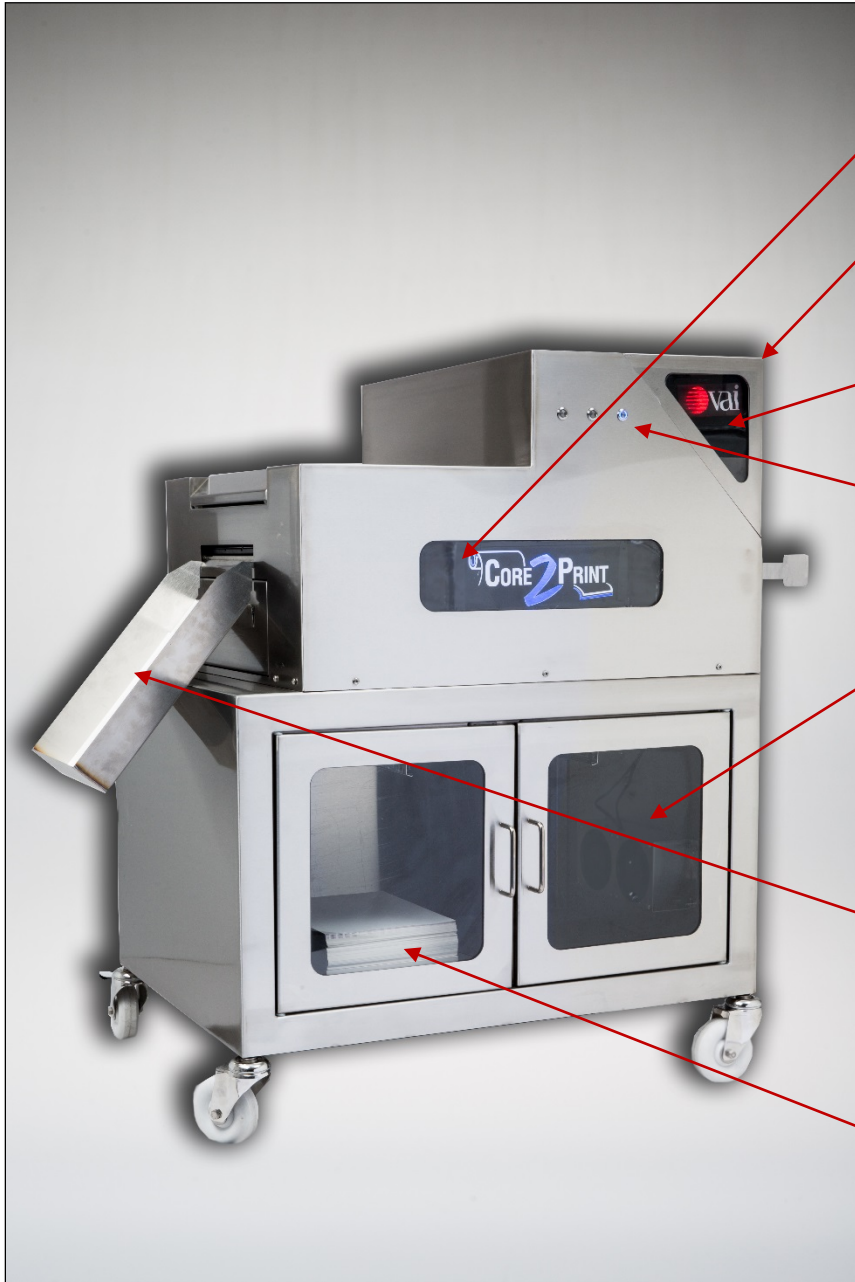
Product Overview

Core2Print® is a patent pending technology that revolutionizes the method for printing required sterile documentation within aseptic manufacturing environments (Grade A, B, C and D). The Core2Print® unit is constructed of 316L stainless steel for durability and Lexan windows for a clear view of the printer in operation. HEPA filtration to the cabinet is a mandatory feature while positive pressure to the cabinet is equally filtered to the controlled environment. The CP10 printer, housed in the cabinet, wirelessly prints onto VAI's pre-sterilized CleanPrint 10 synthetic paper (synthetic plastic): the most durable in the industry.

Features and Benefits

- Core2Print units are chemical resistant and can be completely disinfected with VAI's sterile chemicals.
- Core2Print units assure a HEPA filtered, sealed cabinet whereby contamination cannot exit to the controlled environment.
- Core2Print units have wireless capabilities so documentation required in the controlled areas can be signaled to print from in the core from the exterior.
- Core2Print's CP10 printer is a sheet fed, high speed, and digital quality printer that can print up to 12 inches/second (~60 pages per minute).
- Core2Print CP10 printer has a high quality resolution, up to 1600x1600 dpi.
- Core2Print units utilize the CP10 printer that is capable of printing without releasing particles into the controlled environment.
- Core2Print prints with chemically resistant permanent ink.

Features of the Core2Print



- Core2Print Utilizes the CP10 Printer
- 316L Stainless Steel that can be completely disinfected with VAI's chemicals
- Lexan windows for a clear view of the printer in operation
- Printer contains print status and warning lights
- HEPA filtered
- Prints at a high quality and color with a water based dye that is chemically resistant and permanent
- Prints a 12 inches per second, about ~60 second per minute, 8x faster than competitive printer in the market
- The CP10 prints wirelessly onto VAI's pre-sterilized CleanPrint 10 synthetic paper

Printer Specifications

Feature	Specification
Size:	20" W x 24" L x 17-1/4" H (50.8 cm x 61 cm x 44.0 cm)
Weight:	75 lbs. (34 kg)
Electrical:	110 VAC, 50/60 Hz (220-240 VAC, 50/60 Hz available)
Interface:	CP-10 enables wireless printing or use of a Network (Ethernet) or USB cable
Media Size:	Minimum: 3" x 4.2" (76 mm x 107 mm) Maximum: 9.5" x 17" (241 mm x 431 mm)
Cabinet Construction:	Expoxy Coated Steel/Stainless
Patents:	Over 3,000 worldwide patents
Print Area:	8.5" x 17" (215 mm x 431 mm)
Width of Media:	CP10 printer can print CleanPrint® sheets from 3"-8" wide
Media Size:	Full bleed
Media Thickness:	Minimum: 0.004" (0.102 mm) Maximum: 0.020" (0.5 mm)
Media Area:	Sheet fed CleanPrint® 10 substrate and CleanPrint® 10 sheet fed Labels in varying sizes Minimum: 0.004" (0.102 mm) Maximum: 0.020" (0.5 mm)
Print Speed:	12 inches per second (~60 pages per minute) 8X faster than competitive printers in the market
Print Quality:	Digital quality process printing
Colors:	Prints rich colors at full-bleed and excels in printing readable small fonts and sharp barcodes.
Print Quality:	High quality resolution process printing up to 1600 x 1600 dpi
Print Type:	Capable of printing full digital color at the same cost as monochrome
Print Mechanism:	Uses Memjet Jet technology
Print Head:	5 color Waterflow Print Head (dramatically reduces particulates)
Nozzles/Head:	70,000 nozzles/print head to provide 900,000,000 drops of ink/sec.
Ink:	Water based dye chemically resistant permanent ink
Ink Cartridge:	Memjet®. Changed in seconds with double bagged sterile ink cartridges
Ink Dry Time Period:	0.19 seconds
Counter:	Digital display for number of pieces run/job
Trays/Guides:	Intake and exit trays with adjustable guides
Buttons/Warning Lights:	Print Status Lights/Buttons
Printing Orientation:	Portrait/Landscape/Labels color in one pass
Software:	CP-10 Print Monitor Software, CP-10 Label Design Software, and CP-10 Support Software
Storage Temperature Range:	Long Term: 14° F to 86° F (-10° C to 30° C) Short Term: -11° F to 140° F (-25° C to 60° C) NOTE: Cumulative storage duration above 86° F (30° C) must not exceed 72 hours.
Humidity Range:	5% to 95% Relative Humidity, non-condensing
Atmospheric Pressure Range:	70 kPa to 106 kPa (70 Kilopascals = 10.15264166 Psi and 106 Kilopascals = 15.374000228 Psi)
Electrostatic Discharge:	8 kV air discharges or 4 kV contact discharges* *When tested in accordance with IEC 61000-4-2
Sterile Media Expiration:	24 months



VELTEK ASSOCIATES, INC.

For custom ordering information or pricing of any of these products,
contact your sales representative.

sales@sterile.com

Veltek Associates, Inc.

15 Lee Blvd. Malvern, PA 19355

t. 1-888-4-STERILE

www.sterile.com