

DSS PLASTICS GROUP

CATALOG



IS POLYCARBONATE THE FUTURE?

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DSS LAUNCHES AN APP FOR AUTHENTIGUARD™!

PAGE 17



RFID - OVERSIZED CARDS - INKJET CARDS - PROXIMITY KEYTAGS
- POLYCARBONATE CARDS - ENHANCED TRIBAL CARDS

SERVING THE BAY AREA & SILICON VALLEY SINCE 1970 WITH WORLDWIDE DISTRIBUTION.



WELCOME/ CONTENTS

INTRO

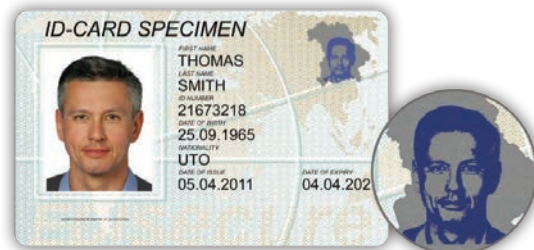
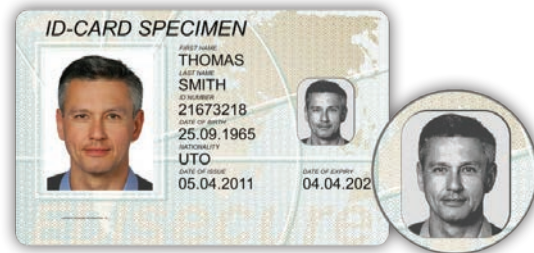
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9 IS POLYCARBONATE THE FUTURE OF ID CARDS?

MESSAGE FROM THE PRESIDENT



DSSPG continually strives to enhance its products.

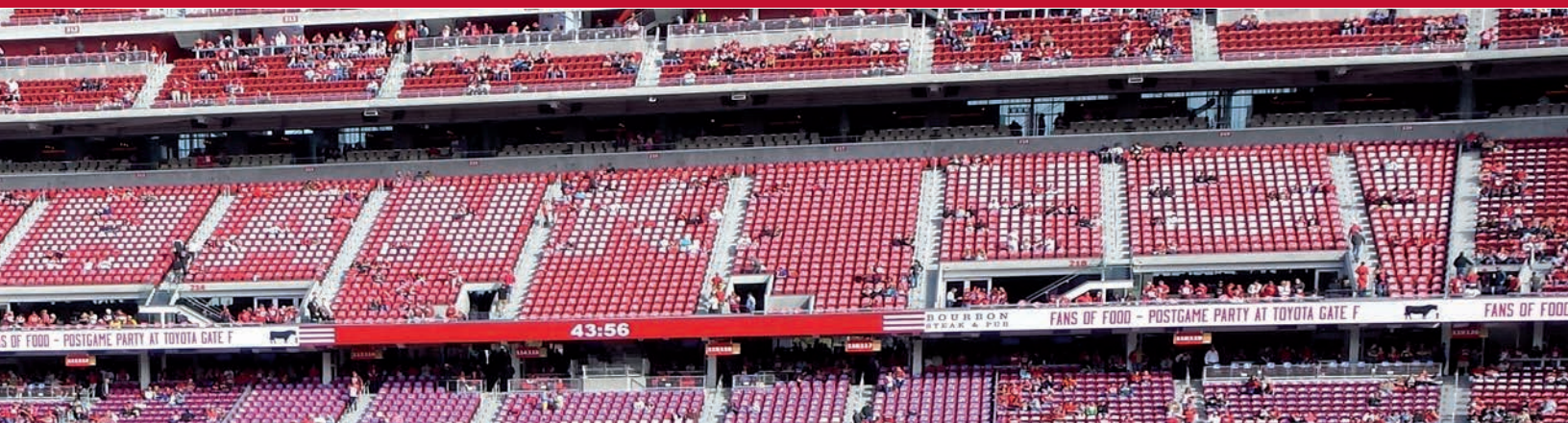
DSSPG is dedicated to finding new innovative products and security features to bring to market. Listening to you, our customer, DSSPG uses its 45 years of experience in the plastic printing and laminating field to continually innovate and manufacture unique, highly secure features & products. Whether its our tried and true, patented Watermark security feature, our our lab tested, virtually unbreakable, XP1 card formulation, we stive to make the best products available. New products like Ink Jet receptive plastic cards or ETC tribal cards, DSSPG also offers one of a kind innovation and security for any card or credential. Add in our numerous patented anti-copy / anti-scan technologies that we can incorporate into you cards and its a recipe for success not seen by other card manufactures.

To maintain cleanliness and to assure we meet our customers high standards, DSSPG has installed Class 100 clean room collating stations that incorporate state of the art heppa filters with ionized air to keep ambient dust and dirt particles off the cards, when the plastic layers are being assembled, insuring you receive the cleanest cards in the market. Whether we are manufacturing PVC, composite, Polycarbonate, ETC Tribal cards, Plastic graphics or Ink Jet receptive cards, you can be assured of receiving the highest quality plastic printed product available, guaranteed! **You have my word!**

Michael P. Cawley



PRODUCT DEVELOPMENT OVERSIZED CREDENTIALS



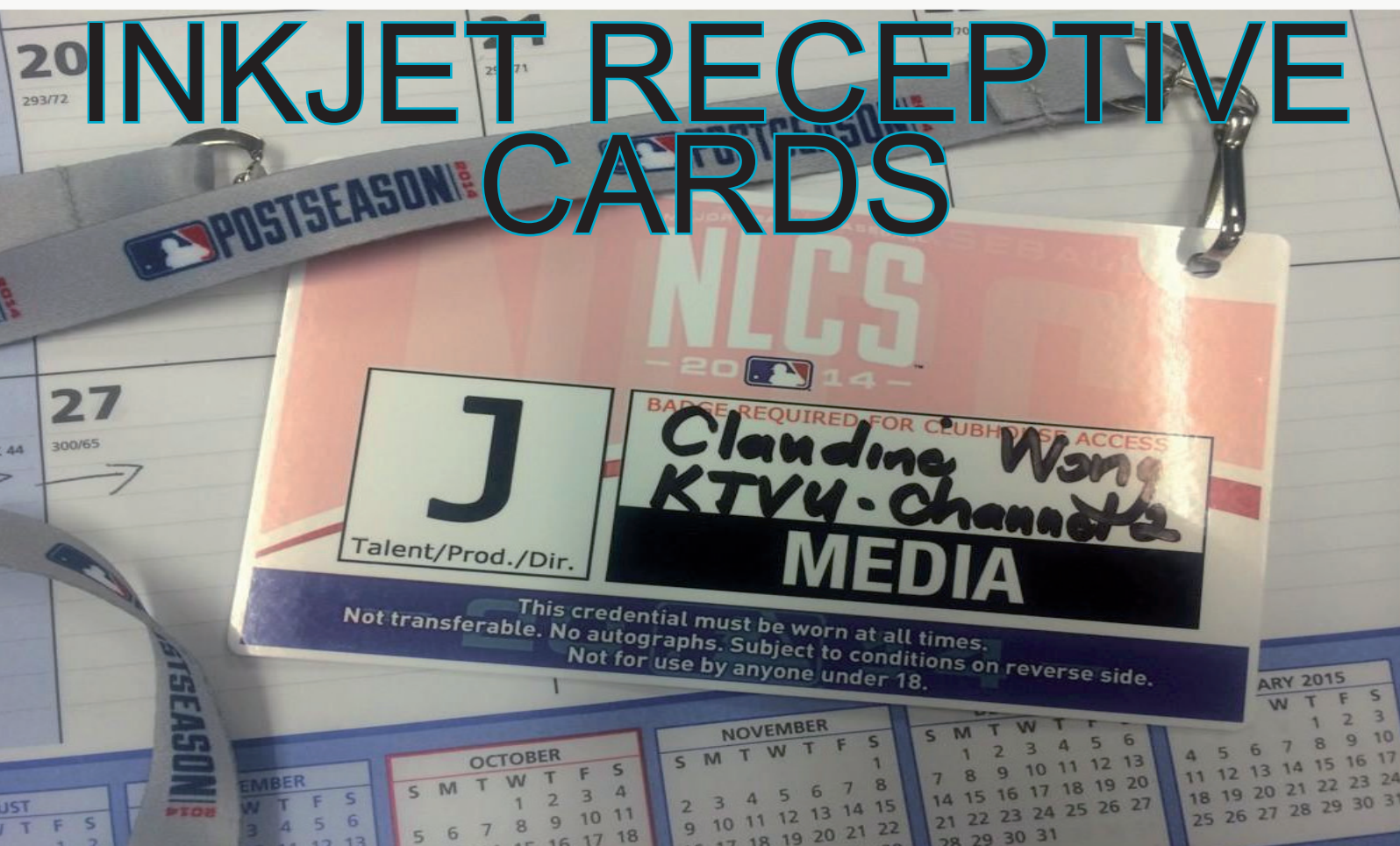
WITH OVER 40 YEARS EXPERIENCE

THE INDUSTRY TURNS TO DSS PLASTICS GROUP FOR PRODUCT DEVELOPMENT AND RELIABLE DISTRIBUTION.

USING OUR WORLDWIDE DISTRIBUTION CHANNEL, WE NOT ONLY DEVELOP THE PRODUCT BUT HELP SELL IT!



INKJET RECEPTIVE CARDS



PRINTING ON DIFFERENT OVERSIZED CARDS OFFERS FLEXIBILITY NEVER SEEN BEFORE.

The Swiftcolor SCC-4000D printer has solved numerous industry problems with large format printing. A single printer can image sizes ranging from CR-80 (2.125" x 3.375") to XXL (3.456" x 5.511"). Until recently, printing different sized cards would require multiple printers. Previously, oversized cards could only print a CR-80 sized image which meant the border of the oversized event cards had to be pre-printed. The SC-4000D printer does come very close to printing edge-to-edge and eliminates the pre-printing requirement. However, DSS Plastics Group still recommends that the card be pre-printed and security features added during the card production process.

This printer is manufactured by KG Digital, a business unit of Kanematsu USA Inc. Kanematsu USA Inc. is backed by the strength and stability of a 120 year global company, Kanematsu Corporation of Japan.

According to Matt Kronholm of Easy Badges, "It is a common problem I have tried to solve for many customers over the years. You need to print over-sized (larger than standard CR80 credit card size) cards on demand for an event. There have been very little truly flexible solutions over the years, but the SwiftColor printer has answered a lot of people's problems. By far it is the most flexible large format card printer and can print anywhere from a standard CR80 card to an enveloped sized card. Other solutions only offer customization with the credit card sized area or just a little extra length, but not width. Many major sport organizations have switched to the SwiftColor including professional and collegiate sporting teams and championship series. I will not list them here to avoid a lawsuit since I can not remember the confidentiality agreements for those. The SwiftColor SCC-4000D can handle any ID that needs to be viewed from afar for event credentials,

law enforcement IDs, and many other applications." The cards for this printer are manufactured by DSS Plastics Group at our Brisbane, CA facility. You can expect the same quality product that you have grown accustomed to over the past 30+ years. We take great pride in bringing products to market, such as this one, and look forward to helping innovate and create new products.

More information can be found at swiftcolorcards.com or by contacting Mike Caulley. Please refer to contact info on the back page.





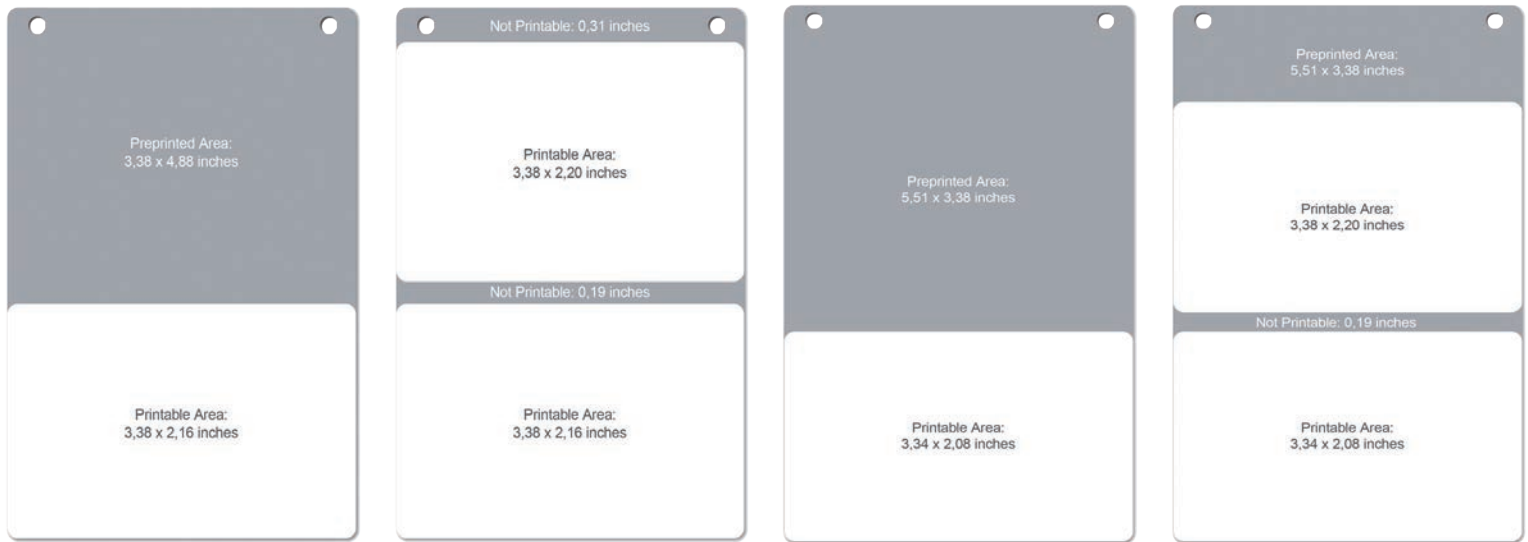
DSS IS PROUD TO MANUFACTURE MOST ALL EVENT CREDENTIALS IN THE UNITED STATES.

ZEBRA ZC10L



ZEBRA RECENTLY LAUNCHED THE ZC10L SINGLE-SIDED PRINTER FOR THE EVENT CARD MARKET. THIS PRINTER IMAGES BEAUTIFUL FRONT SIDE COLOR GRAPHICS UTILIZING THE "CARD CUTTER" WITHIN THE MACHINE. THE CARDS COME WITH A SIDE NOTCH THAT IS CLIPPED OFF WITHIN THE PRINTER. THIS MACHINE CAN ONLY HANDLE 24MIL OR THINNER STOCK WHICH LIMITS THE RFID OPTIONS. DSS PLASTICS GROUP IS CURRENTLY MANUFACTURING THESE EVENT CREDENTIALS FOR SILICOLN VALLEY'S LARGEST EVENTS. AS WITH ALL PRINTERS, THEY ARE TRULY USED TO ADD A SPLASH OF COLOR, ACCESS PRIVLEDGES AND VARIABLE DATA. WE'VE INVESTED IN THE TOOLING AND KNOW-HOW, PLEASE GIVE MIKE CAULLEY A CALL (1-415-467-7669) OR [EMAIL](#).

EVENT CARD PRINTER

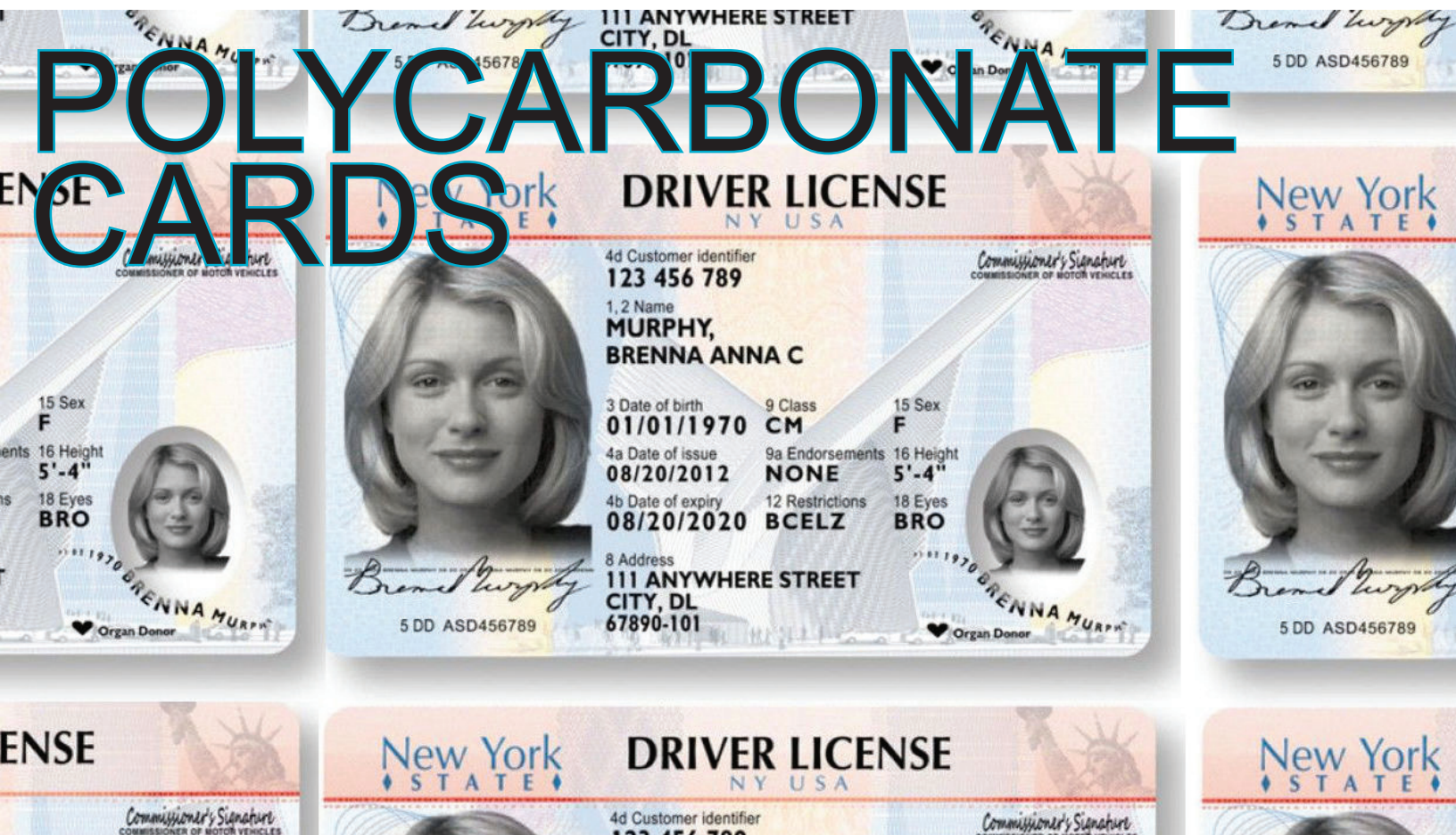


THE XL8300 RETRANSFER PRINTER PROCESSES PRE-PRINTED OFFSET CARDS IN A FORMAT OF 4.88189" X 3.370079" OR 5.51181" X 3.370079". IT IS THE WORLD'S ONLY CARD PRINTER THAT CAN PRINT/PERSONALIZE A MAXIMUM AREA OF 4.17323" X 3.34646" INDIVIDUALLY (DOUBLE ISO FORMAT). DSS PLASTICS GROUP OFFERS MANUFACTURING, PRINTING AND A ROBUST LIST OF SECURITY FEATURES TO ENSURE YOUR EVENT IS PERFECT. PLEASE CONTACT [MIKE CAULLEY](#) FOR MORE INFORMATION.

SWIFTCOLOR PRINTER



THE SCC-4000 INKJET ACCREDITATION PRINTER PROCESSES PRE-PRINTED OFFSET CARDS (OR BLANKS) IN A FORMAT OF 3.35" TO 4.7" INCH WIDE X 1.9" TO 11.81" LONG. THE MAX PRINT AREA FOR THIS PRINTER IS 4.24" WIDE BY 11.69" LONG. THE PRINTER IMAGES AT 1200 DPI. FROM CREDIT CARDS TO EVENT CARDS, THIS ALL-IN-ONE PRINTER CARD HANDLE IT ALL! PLEASE VISIT [HTTP://SWIFTCOLORCARDS.COM/#/HOME/](http://SWIFTCOLORCARDS.COM/#/HOME/) OR CONTACT [MIKE CAULLEY](#) (1-415-467-7669) FOR MORE INFORMATION.



LASER ENGRAVING VARIABLE DATA IS MUCH MORE SECURE THAN RETRANSFER OR DYE SUB PRINTING.

This hard formulation, 100% Polycarbonate, provides maximum durability in high use environments along with perfect laser engraving capabilities. Maximum durability is achieved by using 100% PC material in this formulation. This PC material has the highest resistance to cracking and warping as the layers fuse together to form a solid and secure card body. DSSPG is one of the only US card manufacturers producing PC driver licenses and security cards. Certain secure document designs, such as those with high ink coverage, have proven prone to bubbling. Card manufacturers have to carefully design their card layers to avoid such defects—often making trade-offs that sacrifice performance or price.

Fraud, identity theft and counterfeiting call increasingly for constant vigilance and innovation in electronic ID cards, and so consequently accelerating the demand for more safety features to protect ID cards and security documents. DSSPG offers a high-performance polycarbonate portfolio specially designed for electronic ID cards, government, military and police ID cards, passport data pages, green cards, border crossing cards and driver's licenses. Smart card, passport and ID card manufacturers use heat and pressure to join all layers together to form a card that cannot be pulled apart, preventing risk for disassembly, helping not only to extend the card's service life but also better protect security features inside it. They also provide high performance, exceptional durability and resistance to abrasive cleaning agents and to the chemicals found in sun creams, cosmetics, oils, greases and fuels & are well-suited for various types of printing and embedding of various security features. They can be screen printed or offset printed as well as hot-stamped (hologram). Other technologies include microprinting, infrared- or UV- sensitive printing, guilloche printing and incorporation of RFID. All ID cards are produced in a clean room environment.

What sets it apart from other materials is the non delaminable property of a full polycarbonate document. When used in pure form and not mixed with other plastics, the different layers of polycarbonate that make up the identity document fuse together to form a solid monolithic structure. All security features, including irreversible laser-engraved personalization information, are safely located within and protected by the 100% polycarbonate document. This is referred to as the one-block concept.

Moreover, polycarbonate's durability allows for the production of long-lifespan identity documents which can last for over ten years and is available with a choice of interfaces from chipless, contact, contactless, and dual interfaces (whether with one shared or two distinct microprocessors).

Polycarbonate has won the trust of governments across the world. Over 40 countries have chosen it for their national identity or residence permit programs. Close to 30 national passport programs are using PC. The European Directive of 2006 (2006/126/EC) gave member states until January 19, 2013, to make the switch to a polycarbonate credit-card format driving license. The 28 members of the European Union are now implementing these requirements. Many other countries are following. Is the United States Next? DSS Plastics Group is ready to assist.

In addition new techniques allowing color photos to be laser-engraved in the polycarbonate documents and enhanced visual and tactile security features are providing more opportunities to better meet the evolving demands of government authorities and national printers.

Virginia VA, USA DRIVER'S LICENSE

Customer identifier **T16700185**

Name **MAURY JUSTIN, WILLIAM**

Address **17 FIRST STREET STAUNTON, VA 24401**

Sex **M** Class **NONE** Date of birth **07/15/1958**

Eyes **BRO** Endorsements **NONE** Iss **ORI 08/14/2009**

Height **6FT 3IN** Restrictions **NONE** Exp **07/15/2016**

Organ Donor **DD ASD456789**

Justin W Maury

www.dmvNow.com



“IS THE UNITED STATES NEXT TO ADOPT PC CARDS?” DSS PLASTICS GROUP SAYS YES & IS READY TO ASSIST!

DRIVER LICENSE REGULAR

15 SEX **M** 16 HGT **6'-02"** 17 WGT **210 lb** 18 EYES **BRO** 19 HAIR **BLK** 3 DOB **02/11/1974** 9a END **NONE**

4d S123-4567-4501-00 9 CLASS **D**

1 SAMPLE 2 DEREK THOMAS

8 4802 SHEBOYGAN AVE MADISON, WI 53705

4a ISS **10/31/2015** 4b EXP **02/11/2023** 5 DD **OTNJR2015103118143618**

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PLASTIC GRAPHICS

Hang Tags



Static Cling



Shelf Bobber



Coasters



Rulers



Phone Template



Luggage Tags



Plastic Annual Report Cover

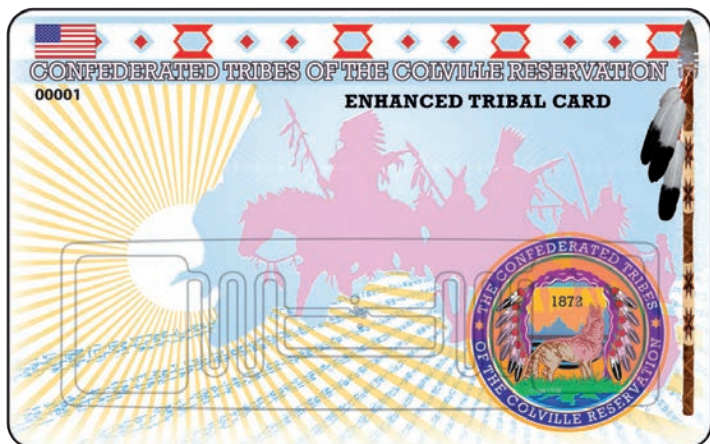


MILITARY GRADE STORAGE



- 24HR SURVEILLANCE
- MILITARY GRADE MESH
- DUAL LOCK ACCESS
- LOCKING CAGE WITHIN THE CAGE FOR EXTRA SECURE PROJECTS
- CARD "OVERS" STORED IN CAGE
- SECURE CARD PROCESSES

ENHANCED TRIBAL CARDS



In 2009, DSS Plastics Group began working on the first ETC card project in the United States. After a year of testing and R&D, we successfully launched the Pascua Yaqui Tribe's secure card.

On May 27, 2009, the Pascua Yaqui Tribe entered into a Memorandum of Agreement between the Tribe and the Department of Homeland Security and Customs and Border Protection regarding the acceptance of a Pascua Yaqui Enhanced Tribal Identification Card "ETC" for border crossing purposes meeting the federal mandate of the Western Hemisphere Travel Initiative known as "WHTI".

"What is WHTI?"

The tragic aftermath of the September 11, 2001 terrorist attacks required thoughtful and immediate improvements to United States border security. WHTI implements a Congressional requirement that all United States citizens and other travelers entering the United States from within the Western Hemisphere present a passport or other accepted documents that establishes the bearer's identity and citizenship to enter or re-enter the United States. The goal is to strengthen border security, standardizing travel documents while facilitating entry into the United States for U.S. citizens and legitimate international travelers.

The WHTI requirement for land and sea border crossing from the Western Hemisphere are set out in the land and sea WHTI Final Rule published on April 2, 2008, and available at 73 Fed. Reg. 18,384.

As of June 1, 2009 when U.S. citizens enter the United States from Canada, Mexico, the Caribbean, and Bermuda

by land and sea (including ferries), they will be required to present a valid U.S. Passport or other document designated by the Secretary of Homeland Security, which is Pascua Yaqui's Enhanced Tribal Card.

Since 2009, DSS Plastics Group has successfully launched 7 ETC cards, leading the way as the preferred secure card manufacturer.

Are you currently providing a service, cards, printers or other items to an American Indian Tribe? Please let the tribe know that you can help them become ETC compliant once they are ready. DSS will guide you through the process with partners that are prepared to assist on the software and hardware side.

For more information, please visit:



ENHANCED
TRIBALCARD.COM

RFID PRODUCTS...

Blank or custom printed



UHF 840-960 MHz

Ultra High Frequency cards are available with and without mag, in composite formulations and custom preprinted. Alien Technology inlays are inventoried for quick production. UHF products are available in different shapes and sizes (hang tags, bin tags, cards, garment tags, etc.). Other inlays available on special order.



HF MiFare UL C 13.56 MHz

MiFare Ultra Light C, the communication layer (MIFARE RF Interface) complies to parts 2 and 3 of the ISO/IEC 14443 Type A standard. This chip is primarily designed for limited use applications such as public transportation, event ticketing and loyalty applications.



HF MiFare 1K 13.56 MHz

NXP has developed the MIFARE MF1ICS50 to be used in a contactless smart card according to ISO/IEC 14443 Type A. The MIFARE MF1ICS50 IC is used in applications like public transport ticketing where major cities have adopted MIFARE as their e-ticketing solution of choice.



HF MiFare 4K 13.56 MHz

NXP Semiconductors has developed the MIFARE Classic MF-1S70yyX to be used in a contactless smart card according to ISO/IEC 14443 Type A. The MIFARE Classic 4K MF1S70yyX IC is used in applications like public transport ticketing and can also be used for various other applications.



LF Proximity 125 kHz

The proximity cards are part of the Contactless card technologies. Held near an electronic reader for a moment they enable the identification of an encoded number. The card and the reader unit communicate with each other through 125 kHz radio frequency fields, by a process called resonant energy transfer. Clamshells available!



LF Proximity keytag 125 kHz

Smaller form factor than CR-80 cards. Often used for 24hr gyms and the like where access is used daily. Having the RFID keytag allows for better control of its whereabouts. Please visit proximitykeytags.com for more info.



Dual Frequency

Multi frequency cards is ideally suited for hybrid applications such as access control accommodating the growing demand for RFID transponders with various read range requirements in the standard card format. Available in hybrid combinations LF/HF and HF/UHF. this option requires longer lead times and order minimums.



Custom

DSS offers RFID products in different sizes and shapes. From hangtags to trash bin tags, we can do it all. Contact Gary Andrechak or Lisa Mitchell to find out more!

PROXIMITY COMPATIBLE KEYTAGS

INTRODUCING THE NEW SLEEK CUSTOM PRINTED PROX KEY TAG

Enjoy the ease of secure electronic door access with our durable new Prox Key Tag. Available with edge to edge custom printing, programming and numbering. Our Prox Key Tags can be barcoded for additional uses in Time and Attendance Systems or other secure environments. A wide variety of barcodes are available and tested for accuracy during the manufacturing process.

Low frequency (LF) RFID systems use primarily 125 KHz near field communication. LF RFID is used most commonly for physical access control systems where employees flash their badge at a door controller to gain access to secure areas.

DSS Plastics Group makes a number compliant RFID cards for common access control systems. Prox compatible keytags can be customized with logos, laminated barcodes, signature panels or even holograms. Bit-Patterns available are: 26, 34, 35, 36 and 37.

How can an electronic device with no power of its own transmit information?

Electric currents generate magnetic fields, and magnetic fields can induce electric currents. The induction field or near field is the region closest to the source of the electric current flow. The radiation field or far field is the region beyond the induction field. Both induction field and radiation field energy can power passive RFID tags, depending on the frequency.

Tags that are activated and communicate within the induction or near field are located within one wavelength of a reader's antenna for a given frequency. Low Frequency (LF) and High Frequency (HF) systems generally have enough power in the inductive fields to power the passive tags. Outside the inductive field, the radiation field generated by the low and high frequencies usually does not produce enough power to activate its tags. LF and HF RFID systems are short range read distance technologies measured in inches of communication distance.



RFID CONTACTS

GARY ANDRECHAK / 415.585.9600 x105

GANDRECHAK@DSSSECURE.COM



FROM STANDARD CARDS TO CUSTOM RFID CONSTRUCTION.

RFID ASSET TAGS



RFID HANG TAGS



RFID GROUND STAKE



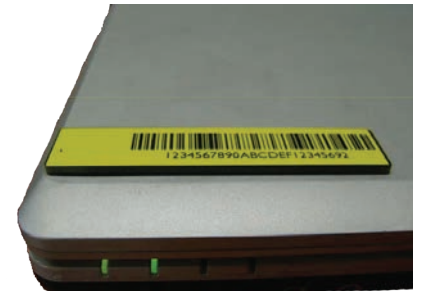
RUGGED RFID FOB



OVERSIZED RFID CREDENTIALS



RFID METAL TAGS



DSS Plastics Group is not set-up to mass manufacture a single item. Our plant flexibility/machinery mixed with veteran operators, allow us to produce customized products on a whim. Anything from car hang tags, trash bin tags, polycarbonate ground stakes and even oversized parking placards can be equipped with RFID utilizing materials to withstand environmental abuse.

Gary Andrechak, RFID product manager for DSSPG states, "We receive calls daily for customized RFID development and I am proud we turn concepts into products quickly and efficiently."



Authentiguard™

WEB: www.authentiguard.com CONTACT: Mike Buell PH: 585-500-4669 EMAIL: mbuell@dsssecure.com

PROTECT YOUR BRAND WHILE BUILDING A STRONGER CONNECTION WITH YOUR CUSTOMERS, THAT'S THE VALUE OF AUTHENTIGUARD. FRAUD RISKS ARE VERY REAL AND COST BILLIONS OF DOLLARS A YEAR. COUNTERFEITING, PRODUCT DIVERSION, AND WARRANTY FRAUD ARE JUST A FEW WAYS THAT COMPANIES ARE CHEATED. AUTHENTIGUARD IS A TWO FACTOR AUTHENTICATION SOLUTION FROM DSS WHICH HELPS DEFEAT THE FRAUDSTERS WHILE ALSO ENHANCING THE CONNECTION WITH CUSTOMERS. PLUS, AUTHENTIGUARD PROVIDES VALUABLE NEW DATA TO HELP WITH INVESTIGATION, MARKET RESEARCH, AND MARKETING.

How It Works - The Authentiguard solution includes three components working together.

The Mark - Developed from our patented Prism technology, the mark is printed on your packaging using normal production processes (offset, flexo, digital.) The mark is resistant to copying, scanning, or other unauthorized reproduction technologies.

The Application - Customers can scan the invisible mark embedded in your product packaging with an Authentiguard mobile application. We can supply you with a fully customizable application or you can integrate the Authentiguard code into your own application. Either way, your customers and field personnel have the power to guarantee the authenticity of your product.

The Portal - With each scan information is captured in the Authentiguard portal including device ID, product identification, scan result, geolocation, photo evidence, and other data. Custom reports can be pulled from the portal and used for forensic analysis or for marketing purposes.

AuthentiGuard in Action - The power of authentication combats fraud while also enabling brands to better connect with their customers.

Fraud Prevention - Data is a key component in fraud prevention. With the Authentiguard solution, customers or field personnel can quickly get data on the product to guarantee authenticity. Authentiguard then generates and captures data from the thousands of scans performed in the field. This data is invaluable for forensic analysis and helps combat fraudulent activities like diversion, warranty fraud, and counterfeiting.

Mobile Engagement - Mobility is at the heart of Authentiguard driving greater engagement with customers. The power of authentication greatly increases the motivation to download your mobile app and then the data returned with the scan are the critical factor in driving one-to-one marketing efforts. Warranty registration, product offers, and other marketing initiatives are all possible with Authentiguard.



SECURITY PRINTING



THESE DAYS, WALLET-SIZED PLASTIC IS ALL AROUND US. SO IS IDENTITY THEFT. IT'S A WIDESPREAD THREAT TO CONSUMERS AND IT CAN THREATEN THE SECURITY OF YOUR FACILITIES. FROM ID CARDS TO SECURITY PASSES, THESE CARDS ARE SYMBOLS OF IDENTITY, SAFETY AND MEMBERSHIP.

NOT ALL MANUFACTURERS HAVE HIGH-RESOLUTION OFFSET PRESSES AND SECURITY PRINTING KNOW-HOW. OUR TEAM HAS PRINTED NUMEROUS DRIVER LICENSE PROJECTS FOR CARD MANUFACTURERS AND ASSEMBLY HOUSES. WE WILL USE YOUR LAYOUT AND GUIDE IN THE DESIGN OF THE IDENTITY CARD TO ENSURE MEETING AAMVA SECURITY LEVELS. OUR SECURE STORAGE AND CAMERA SYSTEM WILL KEEP YOUR PRODUCT SAFE.



SECURITY LEVEL DEFINITIONS

Any number of our security levels and features can be applied to a card in any combination.



L1 LEVEL ONE

OVERT

LEVEL 1 SECURITY PROVIDES THE LOWEST LEVEL OF SECURITY. THIS BASIC SECURITY REQUIREMENT IS REFERRED TO AS OVERT SECURITY PRINTING METHODS (OR METHODS NEEDING SPECIAL OPTICAL TOOLS). OVERT SURFACE LEVEL SECURITY FEATURES INCLUDE USING ULTRA VIOLET, THREADS, WATERMARKS, HOLOGRAMS, SECURITY DESIGNS, MICRO TEXT, FIBERS AND OTHER DISCERNIBLE FEATURES INTO THE PAPER SUBSTANCE OR ON ITS SURFACE DURING THE PAPER MAKING PROCESS. THESE ARE COMPLEMENTED BY APPLIED SECURITY FEATURES, SUCH AS OVD'S OR IRIDESCENT STRIPES, HEAT SENSITIVE INK, OPTICAL VARIABLE INK AND VARIOUS HIGH END PRINTING METHODS OR TECHNOLOGIES. PRINTED PERSONALISED DATA IS A PART OF THIS LEVEL OF SECURITY AND ARE STATIC IN NATURE. WITH THE EASY AVAILABILITY OF TECHNOLOGY TODAY, SUCH SECURITY FEATURES HAVE BECOME MORE EASILY TAMPERED OR COPIED.

L1'S FEATURES PROVIDE THE ADVANTAGE OF EASY AND QUICK CURSORY VISUAL VERIFICATION OF IDENTITY INFORMATION WITHOUT THE USE OF SPECIFIC OR SPECIALIZED TOOLS. HOWEVER, AN EXPERT WITH SPECIFIC TOOLS WILL BE NECESSARY TO IDENTIFY FORGERIES OR TAMPERING. DUE TO THE BASIC AND VISUAL NATURE OF VERIFICATION OF THESE FEATURES, L1S FEATURES ALONE ARE NO LONGER SECURE AND CAN, IN SOME INSTANCES WHERE POORLY IMPLEMENTED, INCREASE THE INCIDENCES OF IDENTITY THEFT, ABUSE AND DOCUMENT FORGERY. IN ADDITION, BECAUSE SUCH FEATURES AND INFORMATION PRINTED USING L1S ARE STATIC, THERE ARE INHERENT LIMITATIONS ON THE DEPTH AND VALIDITY OF THE IDENTITY INFORMATION BEING PROTECTED AS WELL AS IF SUCH INFORMATION IS UP-TO-DATE.

L2 LEVEL TWO

COVERT

LEVEL 2 SECURITY IMPROVES UPON THE PHYSICAL SECURITY MECHANISMS OF LEVEL 1 SECURITY BY TAKING INFORMATION PROTECTION TO A COVERT AND EMBEDDED LEVEL. THIS PREVENTS CASUAL INTRUDERS FROM GAINING ACCESS TO, FOR EXAMPLE, ENCODED CONFIDENTIAL INFORMATION INSIDE AN EMBEDDED CHIP OR OTHER MEANS OF ENCODING. TECHNOLOGIES AT THIS LEVEL INCLUDE SMART CHIPS, MAGNETIC STRIPS, RADIO FREQUENCY IDENTIFICATION (RFID), CONTACTLESS CHIPS OR SMART CHIPS WITH EMBEDDED IDENTITY AND BIOMETRIC DATA. WITH THE RIGHT TOOLS, L2S SCHEMES ALLOWS THE CAPABILITY TO CAPTURE, REGISTER AND AUTHENTICATE DOCUMENT HOLDERS' IDENTITY INFORMATION AND, OF LATE, BIOMETRIC IDENTITY INFORMATION. THE ENCODED DATA IS LIMITED BY THE CHIP MEMORY SIZE AND CAPABILITY. A SPECIALIZED ACCESS MECHANISM (I.E. THE READER AND ENCODER DEVICE) IS REQUIRED TO OBTAIN ACCESS TO THE RELEVANT DATA SOURCE AND WRITE DATA ONTO THE EMBEDDED MEDIUM.

L2'S HAVE BEEN BREACHED BY TECHNOLOGICAL ADVANCEMENTS AND CAN NO LONGER BE CONSIDERED AS 100% SECURE. WITH TODAY'S TECHNOLOGY, COUNTERFEITING IS NO LONGER UNUSUAL AND IDENTITY DOCUMENT INFORMATION CAN BE POTENTIALLY TAMPERED, MODIFIED, STOLEN AND DUPLICATED INTO ANOTHER DOCUMENT TO BE USED FOR UNAUTHORISED OR ILLEGAL PURPOSES.

THE AUTHENTIQUARD SUITE OF SECURITY FEATURES FITS PERFECTLY INTO THE L2 CATEGORY.

L3 LEVEL THREE

FORENSIC

LEVEL 3 SECURITY OFFERS SECURITY, INTEGRITY AND INFORMATION FROM THE SURFACE LEVEL TO THE SPECIALIZED FORENSIC LEVEL. ESSENTIALLY, L3S WILL PROVIDE AS MANY SECURITY LEVELS AS NEEDED FOR ANY SITUATION BY CATERING TO L3'S FORENSIC CHECKS ON IDENTITY AND SECURITY INFORMATION NOT READILY ATTAINABLE OR VIEWABLE UNLESS ACCESSED BY FORENSIC TOOLS WITH THE CORRECT LEVELS OF AUTHORISED ACCESS. THE ABILITY TO APPLY MULTIPLE SUB-LEVELS OF SECURITY IS MADE POSSIBLE BY THE CONCEPT OF CENTRALISED (AS OPPOSED TO LOCALISED) AND DYNAMIC IDENTITY DATA MANAGEMENT BY WHICH CENTRALISED AND FORENSIC SECURITY CONTROLS CAN BE APPLIED ON TOP OF THE LOCALISED AND LIMITED SECURITY APPLICATIONS ONTO AN IDENTITY DOCUMENT. TAMPERED AND FORGED IDENTITY DOCUMENTS ARE EXPOSED WHEN CENTRALLY RETRIEVED ORIGINAL DATA OF THE TRUE IDENTITY REVEALS DISCREPANCIES ON THE DOCUMENT AS WELL AS ANY REAL-TIME, UPDATED INFORMATION SUCH AS CURRENT STATUS OF A PERSON'S IDENTITY PROFILE.

LEVEL 3 SECURITY IS REFERRED TO AS THE MOST IN-DEPTH AND HIGHEST SECURITY LEVEL TECHNOLOGY FOR SECURING IDENTITIES AND IDENTITY DOCUMENTS. THIS FOCUSES AROUND THE PROTECTION OF THE ONE TRUE IDENTITY OF EACH INDIVIDUAL AND THEREBY, AUTOMATICALLY PROTECTING THE RELATED IDENTITY DOCUMENTS. CONVERSELY, WITH L1'S AND L2'S SCHEMAS, THE FOCUS IS TO PROTECT AN IDENTITY DOCUMENT THEREFORE PROTECTING AN IDENTITY. HOWEVER, ONCE THE IDENTITY DOCUMENT'S SECURITY IS BREACHED, THE IDENTITY IT IS MEANT TO PROTECT IS ALSO AUTOMATICALLY COMPROMISED.

DSS WATERMARK



DSSPG's LATEST PRODUCT DEVELOPMENT TO GUARD AGAINST FORGERY AND COUNTERFEITING INVOLVES A UNIQUE PROCESS WHICH ALLOWS US TO PLACE CUSTOM WATERMARKS INTO PLASTIC CARDS (SIMILAR TO HOW MONEY IS WATERMARKED). CUSTOM LOGO'S, COUNTY SEALS, EMBLEMS, OR ANY TYPE OF ARTWORK CAN BE INSERTED INTO THE CARD. AFTER THE CARDS ARE MANUFACTURED, THE WATERMARK ARTWORK CAN BE VIEWED BY BACKLIGHTING THE CARD WITH ANY LIGHT SOURCE. WATERMARKS CAN BE SEEN EQUALLY GOOD AROUND PRINTED OR NON-INK AREAS. WITH THIS EXCITING NEW PRODUCT, THE CARD SURFACE REMAINS VIDEO GRADE AND WILL NOT CAUSE PRINTING ISSUES WITH YOUR DYE SUBLIMATION OR RETRANSFER PRINTER. NO PRINTING INK OF ANY KIND IS USED TO MANUFACTURE THIS HIGH SECURITY PRODUCT. IT IS EXCLUSIVELY MADE AND MANUFACTURED BY DSSPG, FOR ITS DEALERS AND CLIENTS. DSSPG OFFERS THIS TECHNOLOGY IN QUANTITIES AS LOW AS 1,000 PIECES WITH NO SET-UP OR ART ORIENTATION COSTS.

WATERMARKS CAN BE OVERT (EASILY SEEN) OR COVERT (HIDDEN).

DSSPG WATERMARKS HAVE SUCCESSFULLY BEEN USED IN DRIVER LICENSES, GOVERNMENT ID'S & OTHER HIGHER SECURITY CARDS. UNLIKE SECURITY INKS OR HOLOGRAMS THAT ANY MANUFACTURER OFFERS, DSS'S PATENTED WATERMARK FEATURE CAN ONLY BE MADE BY DSS PLASTICS GROUP. THE SOLE SOURCE MANUFACTURING BY DSSPG INCREASES THE SECURITY OF THE PRODUCT/FEATURE AND QUICKLY ELIMINATES COUNTERFEITING.

TRUST DSSPG TO APPLY ITS PATENTED WATERMARK PROCESS TO YOUR CARD TO GUARANTEE AUTHENTICITY!

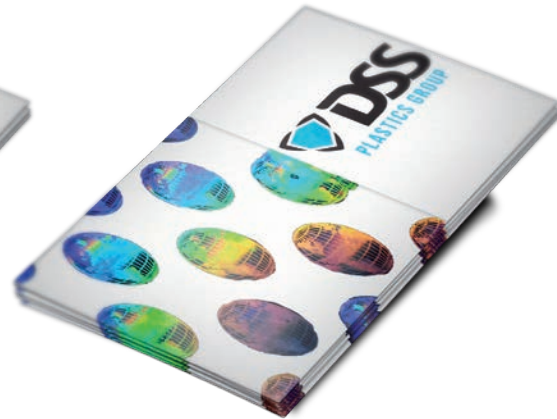
ROSETTE/
GUILLOCHE



EMBEDDED
WATERMARK



EMBEDDED
HOLO FOIL



SPLIT-FOUNTAIN



THERMOCHROMIC
INK



LASER ENGRAVING



COLOR SHIFTING



LATENT IMAGE
PRINTING



BAS-RELIEF
PRINTING



ADDITIONAL L1 OPTIONS

- STROKE WIDTH MODULATION
- COLORED CORE MATERIAL
- OPACITY/CLEAR WINDOW
- PEARLESCENT INKS

INFRARED (IR) INVISIBLE INKS



EMBEDDED (HIDDEN) WATERMARK



INVISIBLE INK



MICROFINE PRINTING



AUTHENTIGUARD™ PRISM



LASER ENGRAVING



AUTHENTIGUARD™ LASER MOIRE



RFID (LF, HF, UHF)



CURRENCY-GRADE PRINTING



Phone or Verifier used to authenticate

ADDITIONAL L2 OPTIONS

- AUTHENTIGUARD™ MARK
- CORE PRINTING
- UV INKJET PRINTING
- AUTHENTIGUARD™ BLOCK-OUT
- TAGGENTS WITH AUTHENTICATION
- BI-FLUORESCENT INKS

AUTHENTIGUARD™
(REFER TO PAGE 17)



MACHINE READABLE
CLEAR INK



DNA ENCODED INKS



4 DIFFERENT COLOR NM INK



AUTHENTIGUARD™
PRISM PHONE APP



BRANDWATCH





WHAT IS REAL ID?

The REAL ID Act of 2005, Pub.L. 109–13, 119 Stat. 302, enacted May 11, 2005, was an Act of Congress that modified U.S. federal law pertaining to security, authentication, and issuance procedures standards for the state driver's licenses and identification (ID) cards, as well as various immigration issues pertaining to terrorism.

The law sets forth requirements for state driver's licenses and ID cards to be accepted by the federal government for “official purposes”, as defined by the Secretary of Homeland Security. The Secretary of Homeland Security has currently defined “official purposes” as presenting state driver's licenses and identification cards for boarding commercially operated airline flights and entering federal buildings and nuclear power plants, although the law gives the Secretary the unlimited authority to require a “federal identification” for any other purposes that the Secretary shall determine.

The REAL ID Act implements the following:

- *Title II of the act establishes new federal standards for state-issued driver licenses and non-driver identification cards.**

- *Changing visa limits for temporary workers, nurses, and Australian citizens.**

- *Funding some reports and pilot projects related to border security.**

- *Introducing rules covering “delivery bonds” (similar to bail bonds but for aliens who have been released pending hearings).**

- *Updating and tightening the laws on application for asylum and deportation of aliens for terrorist activity.**

- *Waiving laws that interfere with construction of physical barriers at the borders.**

UPDATE

All states have until October 1st, 2020 to become compliant, according to a statement from Sec. Jeh C. Johnson

Johnson also unveiled the final phase of implementation of the REAL ID Act, which relates to commercial air travel. These are the timelines for that final phase:

- *Effective immediately, Homeland Security will conduct outreach to educate the traveling public about the timeline and continue engagements with states to encourage compliance with REAL ID standards.**

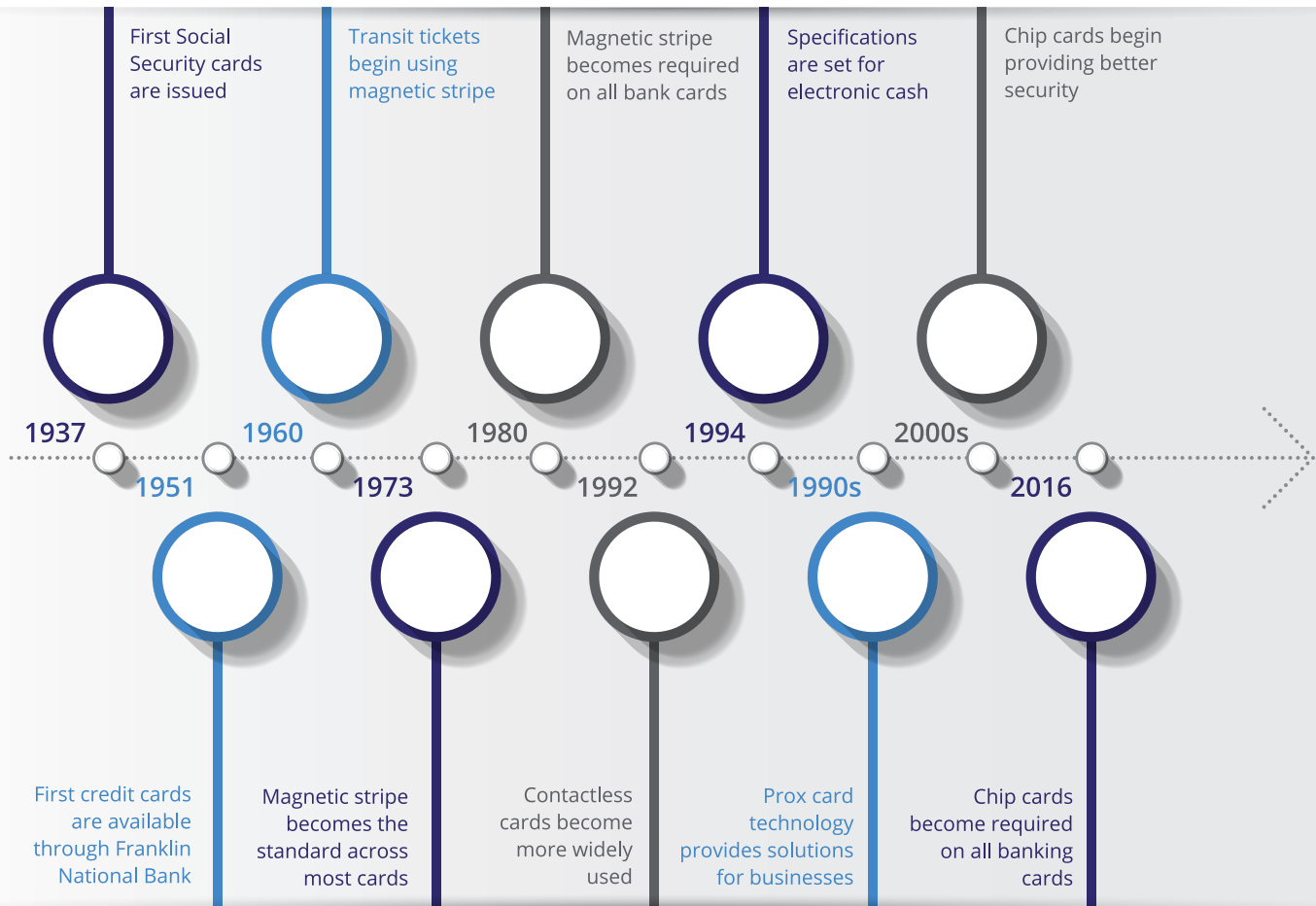
- *Starting July 15, 2016, TSA, in coordination with airlines and airport stakeholders, will begin to issue web-based advisories and notifications to the traveling public.**

- *Starting December 15, 2016, TSA will expand outreach at its airport checkpoints through signage, handouts, and other methods.**

- *Starting January 22, 2018, passengers with a driver's license issued by a state that is still not compliant with the REAL ID Act — and has not been granted an extension — will need to show an alternative form of acceptable identification for domestic air travel to board their flight.**

- *Starting October 1, 2020, every air traveler will need a REAL ID-compliant license, or another acceptable form of identification, for domestic air travel.**

CARD HISTORY





SECURE
CARD DESIGNS
Meet or exceed AAMVA standards!

DSS Plastics Group Update on Strategy and Product Expansion **New Product Focus Showing Strength in Secure Card Business**

Document Security Systems, Inc. (NYSE MKT: DSS), (DSS), a leader in anti-counterfeiting and authentication solutions today released an update on its DSS Plastics division. DSS Plastics manufactures a variety of plastic card products used for identification, access control, and credentialing purposes. DSS Plastics initiated a strategy to diversify its product line and focus on higher margin, difficult to produce products. Customer response to the new products has been strong and these products now account for approximately half of DSS Plastics' total revenue.

New product offerings include secure card design, oversized credentials, inkjet products which permit on-demand production, access control cards, and RFID enabled card products. "Since implementing our diversification strategy we have returned strong results for our division," according to Mike Caulley, President of DSS Plastics. "New, higher margin products now account for approximately 50% of Plastics revenue and we believe they will make up a majority of our business in 2020." DSS Plastics products are now used at most major sporting events in the US, in corporate settings throughout the US, as well as in a wide range of government issued identifications. Moving forward, DSS Plastics will have the capability to design and manufacture Real ID cards with a recent investment and training in a currency-level software design program.. Our first launch into this space will be completed by June, 2019 with the design and manufacture of American Samoa driver license.

DSS Plastics is well positioned with other new products which are starting to show growth. The company has developed new production capability for difficult to produce polycarbonate products which are increasingly used for very secure identification and credentials. DSS Plastics is one of a limited number of manufacturers in the US capable of producing polycarbonate cards. PC production with the capability of split-fountain printing is very rare in the US card manufacturing space.

The company has also aggressively moved into the market for Enhanced Tribal Identification Card (ETC) products. Mandated by Congress as part of the Western Hemisphere Travel Initiative, ETCs are secure identification issued by Native American governing bodies. DSS Plastics is currently producing ETCs for seven tribes with several more in discussion. As part of this strategy, DSS Plastics invested approximately \$650,000 in equipment and building improvements to enhance its production capabilities. "The investments we have made in infrastructure and equipment allow us to provide our customers with difficult to produce products like polycarbonate," according to Mr. Caulley. "We have positioned our business as a strong competitor in these typically higher margin markets and expect they will help drive revenue and profitability."

Is your card surviving corporate abuse ?



You may need a formulation that better suits your environment !



DS cards are constructed of 100% PVC and like all PLASTIC PRINTING PROFESSIONALS dye sublimation card stock, DS cards are manufactured to the highest standards of surface quality and overlaminant chemistry. As the standard bearer, the DS card leads the industry in cleanliness. The DS card is the first PVC card to be assembled in a clean room environment, and was the first to be shrink wrapped in 100 lots.



The DS₂ card is a composite formulation of PLASTIC PRINTING PROFESSIONALS proprietary SofTouch material (25%) and PVC (75%). Greater flexibility and crack resistance allow this formulation to meet the demands of many high use applications. As with the DS card, overlaminant and base substrate materials are tracked and logged by batch numbers, and cards are shrinkwrapped in 100's.



The C₄ card is a composite formulation of biaxially oriented polyester (40%) and PVC (60%). The C₄ is designed to work with card printers that offer heat activated in-line lamination. In most cases, this thin film lamination is applied to one side only. The C₄ minimizes the warpage inherent in this uneven lamination process and yields a card with outstanding resistance to cracking.



The C₆ card is a composite formulation of biaxially oriented polyester (60%) and PVC (40%). Like its C Series brethren, the C₆ is designed to withstand higher temperatures and resist cracking. Even greater flatness is achieved with this high performance, rigid formulation. This card is perfectly suited for in-line lamination and demanding, high-use applications.



The C₈ card is a composite formulation of biaxially oriented polyester (80%) and PVC (20%). The C₈ is the industry's premium polyester composite formulation. Because of its unparalleled rigidity and thermal resistance properties, the C₈ has been traditionally used in high use smart card applications where its value is easily proven.



The XP₁ is PLASTIC PRINTING PROFESSIONALS first composite formulation containing (66%) SofTouch (20%) polyester (14%) PVC and remains unbeatable in high-use mag stripe and bar code environments. The softer and lighter materials used in the construction of the XP₁ minimize head wear in printers, encoders and readers. This surface compliance reduces abrasion failures and significantly increases the useful life of the card. The XP₁ is extremely successful in the grueling university marketplace and ski environments.



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