

# North Carolina solves its quest for best-in-class REAL IDs with PPG TESLIN® substrate



"We designed one of the most secure REAL ID-compliant DL/IDs available using *Teslin* substrate because it can host all our advanced security features in a highly-durable card, at a reasonable cost. Further, its material properties are adaptable to accommodate future security enhancements."

**TORRE J. JESSUP**

Commissioner, North Carolina Division of Motor Vehicles (DMV)

## Summary

- The North Carolina Division of Motor Vehicles (NCDMV) leveraged intensive research and other jurisdictions' best practices to design one of the most secure REAL ID-compliant driver's licenses and identification cards (DL/IDs) in the nation.
- North Carolina selected a PPG TESLIN® substrate composite card solution because of its proven ability to host numerous advanced security features, coupled with its long-term durability and adaptability – all at a cost that reflects mindful stewardship of public resources.
- The NCDMV successfully met REAL ID compliance requirements in advance of required deadlines with a best-in-class card design and a dramatic reduction in customer card replacement. Customers are satisfied; the DMV has not received a single customer complaint about the *Teslin* substrate-based card.



## Challenge

The 2005 REAL ID Act requires states to issue identification that meets high security standards. By 2020, individuals without REAL ID-compliant DL/IDs need additional identification to board commercial airlines and access many Federal facilities.

REAL ID-compliant IDs must include a barcode and security features that prevent card tampering or counterfeiting. REAL ID also requires card security features that can't be reproduced using technologies available to the general public.

In 2013, the North Carolina DMV established a comprehensive program so residents could obtain REAL ID compliant driver's licenses by 2017. The state issues 2.4 million DL/IDs annually and wanted to become compliant as quickly as possible. At that time, North Carolina's DL/IDs utilized PVC that was prone to degradation and damage. Cards cracked and peeled as the laminate was exposed to heat and cold.

Critical imagery and type features were fading early into the card's eight-year lifespan, making it difficult for officials to authenticate a person's identity. Sight inspection was compromised and smearing prevented barcode scanning. The PVC construction was also susceptible to attacks to alter personal information.

In addition, the PVC card construction would not support the enhanced security features required for REAL ID compliance.



## Solution

The NCDMV assembled a cross-functional committee that developed rigorous specifications beyond minimum REAL ID requirements to ensure even greater levels of security. The team evaluated two constructions: a *Teslin*-PETg composite card and a polycarbonate (PC) card. It determined that the *Teslin*-PETg card option was ideal because it could accommodate the entire package of features at approximately one-third the cost of the PC option.

The card construction uses *Teslin* substrate as the printed card core and PETg as the platen-laminate overlay. Color personalization of the customer photo and color ghost image on the *Teslin* substrate layer is printed with color xerographic technology. Superior image resolution means color photos are exceptionally clear. Images will not fade because ink and toner are embedded into the material. Coupling images with laser-engraving and other secure elements enables greater protection.

The *Teslin* substrate card successfully integrated multiple layers of security, while providing superior bondability to the PETg overlay that renders the card inoperable if alteration is attempted. The result is a highly secure, flexible and exceptionally durable card that will meet or exceed the state's required eight-year lifespan.

An additional consideration was to select a card construction that could easily adapt to continuous security feature enhancements. The state appreciated that *Teslin* substrate's unique material properties allow for additional security components as new technologies become available.

The state also modernized issuing equipment and transitioned from decentralized issuance to a central processing location for greater controls and cost efficiencies. The *Teslin* substrate solution is adaptable for either issuance model.



## Results

As the *Teslin* substrate-based REAL ID cards were issued, The NCDMV conducted training and education so that stakeholders could understand the new card and its authentication features. It also launched a significant public awareness program for residents.

North Carolina residents quickly embraced the *Teslin* substrate-based cards. Within the first three weeks, more than 11,000 cards were issued. In less than one year, more than 445,000 North Carolinians had obtained the new DL/ID.

Moving card production from 113 locations to central processing allowed for greater security controls and cost containment, without sacrificing customer convenience. North Carolina has realized a dramatic reduction in customer card replacements and to date, has received only one report of attempted fraud.

Constructed of secure and durable *Teslin* substrate, the REAL-ID compliant cards help prevent counterfeiting, reduce identity theft risks and decrease fraud. The NCDMV successfully met REAL ID compliance requirements in advance of required deadlines with a best-in-class card design. And, customers are satisfied; the DMV has not received a single customer complaint about the new *Teslin* substrate-based card.



## North Carolina's REAL ID



A REAL ID is a single form of identification to:

- Travel on commercial airlines
- Enter military bases
- Enter federal facilities
- Enter nuclear power plants

## About PPG TESLIN® Substrate ID Solutions

The unique, high-performing properties of *Teslin* substrate make it ideal for high-security applications that require outstanding durability and printability:

- Outlasts more rigid card materials
- Delivers tamper-evident protection by permanently distorting if alteration is attempted
- Vivid, high-definition color photo and laser-engraving make ID authentication easy
- Supports centralized issuance for REAL ID compliance programs
- Customizable with embedded security features for program-specific formulations
- Protects and cushions embedded electronics

Contact our experts at +1 724-325-5016 to put *Teslin* substrate to work for your high-security document and ID needs.

