



CHEAPER,
SAFER,
FASTER:

Disruptive Technology &
Transportation Infrastructure

May 16, 3-5 pm
House T&I Committee Room

CHANGE
AHEAD

AASHTO

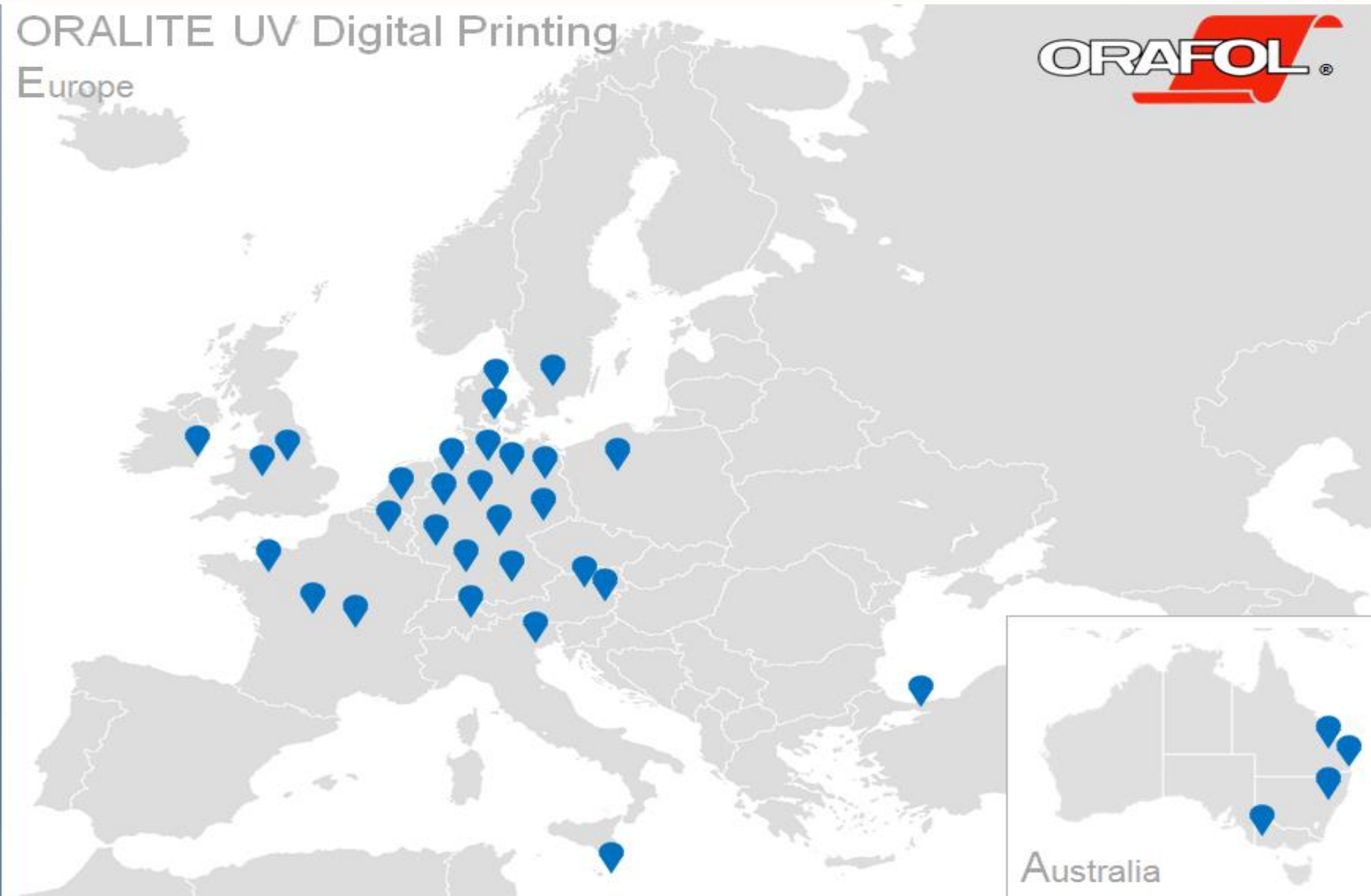
Eno
Center for
Transportation

Complimentary Tool

- Today highway signs are fabricated using:
 - Silk Screen Ink
 - Overlay Film
 - Plotter Cut Letters & Numbers
- Digital Printing adds another dimension to sign manufacturing
 - Labor and Cost Savings
 - Multi-color output
 - Short run speed
 - Inventory reduction
 - Environmentally responsible

Annually Millions of Sq Ft Produced

ORALITE UV Digital Printing
Europe



Australia

Public Information



Guide Signing



Overhead Signing



Overhead Signing



Destination Signing



ORALITE Hybrid Printer

ORALITE®

UV Traffic Sign Printer

Hybrid
2 in 1 System

Roll-to-Roll & Direct-to-Substrate

EXPAND
Your Capabilities



Reflective Printing **Today**
Direct-to-Substrate **Tomorrow...**

ORALITE Traffic Sign Printer

UV Ink

- Uses ORALITE 5019 UV Digital Ink
- Six print heads for printing the standard traffic colors
- Spot Colors: Blue, Black, Brown, Green, Red & Yellow
- Store up to 5 litres of each ink



ORALITE Traffic Sign Printer

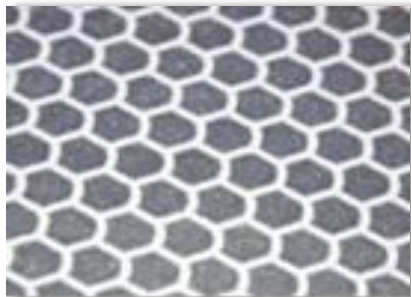
Approved ORAFOL Reflective Films for Digital Printing with Laminate

ASTM Type
I



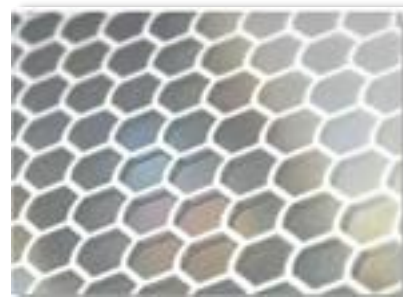
ORALITE 5700

ASTM Type
III



ORALITE 5800

ASTM Type
IV



ORALITE 5900

ASTM Type
VIII, IX, TBD



**ORALITE
6900
7900
9900**

4 Easy Steps



1. Print



2. Sign Lamination



3. Plotter Cut



4. Substrate Lamination

On Demand Signs



ORALITE Traffic Sign Printer

- UV Inks that are specifically formulated to meet FHWA Highway Colors - **Color Specifications (23 CFR 655)**
- ORAFOL formulated **UV inks** that provide **long life**
- Transparent overlay systems that provides:
 - Sign Life
 - Optical Clarity
- **WARRANTY** that compliments the Reflective Sheeting
- **ASTM D-4956 Compliance** for photometrics and color

After Xenon Weathering

Control



1625 hrs



2375 hrs



3000 hrs



ASTM WOM requirement is 2200 hours

So Why Do It?

Save Time & Money

- Multi-color printing in 1 step
- No need:
 - **Silk Screen**
 - for screen wash-up
 - store screens
 - to make screens
 - for drying racks creating space
 - **Overlay**
 - Labor to Weed
 - Scrap
- No dry time
- Film inventory reduction
- Sign Reorder – no problem
- Multi-tasked /productive workforce
- More custom signs/hour

Provide Service

- Spec compliance to ASTM D4956 & AASHTO M268
- **Warranted sign system**
- Sign delivery when your department needs them
- Multi-color signs no longer a dreaded request
- Graphic quality printing
- **Environmentally responsible system**

Where Is the Technology Headed

- Number one demand is for even greater speed and throughput
 - ORAFOL has answered the call with its ORALITE Traffic Sign Printer 2050i.
 - Introduced this year at Intertraffic 2016