

PRIMED FOR SUCCESS: NOVEL WB HIGH PERFORMANCE PRIMER POLYMER

2021 Western Coatings Symposium
Karl Booth & Andy Balgeman



Complexity of the Architectural Primer Market Today

Market

- Pro vs. DIY

Technologies

- Water vs. Solvent

Price Point

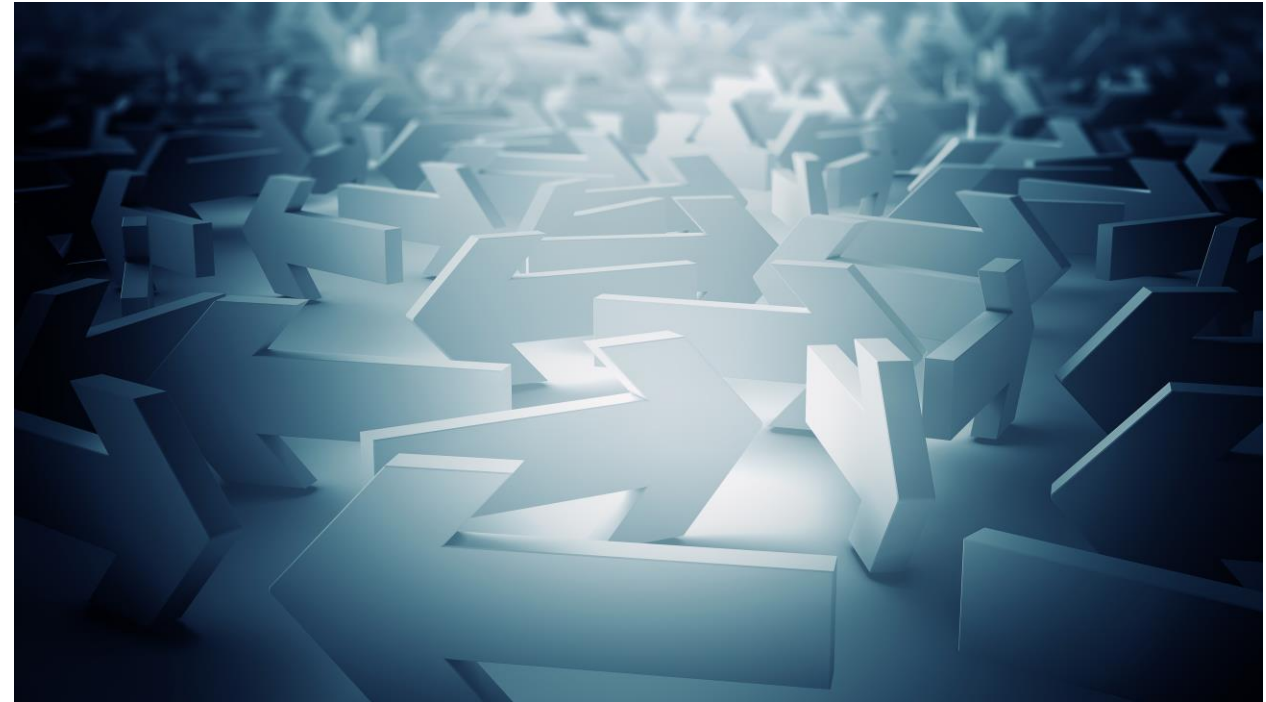
- Economical vs. Premium

Categories

- Universal vs. Specialty vs problem solver

Coating System

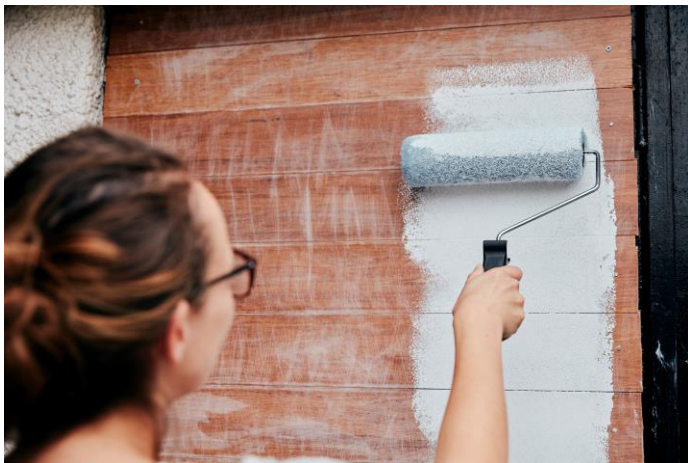
- Primer/Topcoat vs. Paint and Primer in one



Complexity of the Architectural Primer Market Today

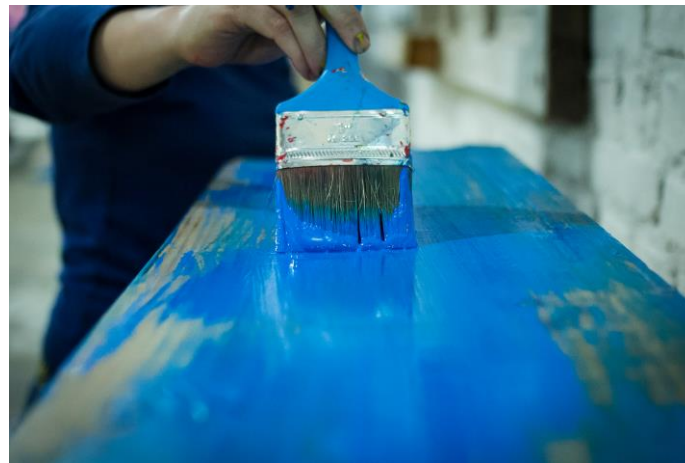
- **Interior Properties**

- Stain-blocking
 - Inks, markers,
 - Household Stains
- Adhesion:
 - Wood, Plaster, Drywall, plastics, composites
- Enamel holdout



- **Exterior Properties**

- Grain Crack Resistance
- Adhesion: Wood, Metal, Composites, Chalked
- Water resistance
- Highly Alkaline Substrates
- Tannin blocking



- **Market Claims**

- “Universal”
- Specialty/Problem solver
- Low VOC , Low Odor
- APEO Free
- Fast Dry
- Tintable



Architectural Primer Market Snapshot – Benchmark 1

Benchmark Evaluation:

- Crosshatch Adhesion

- Glazed Ceramic
- PVC
- Glossy Alkyd
- Cedar
- Pine
- CRS
- Aluminum
- Galvanized Steel
- Vinyl

Enamel Holdout

- Penopac charts
- Topcoat w/National Brand 100% Acrylic Flat UW

Tannin Staining

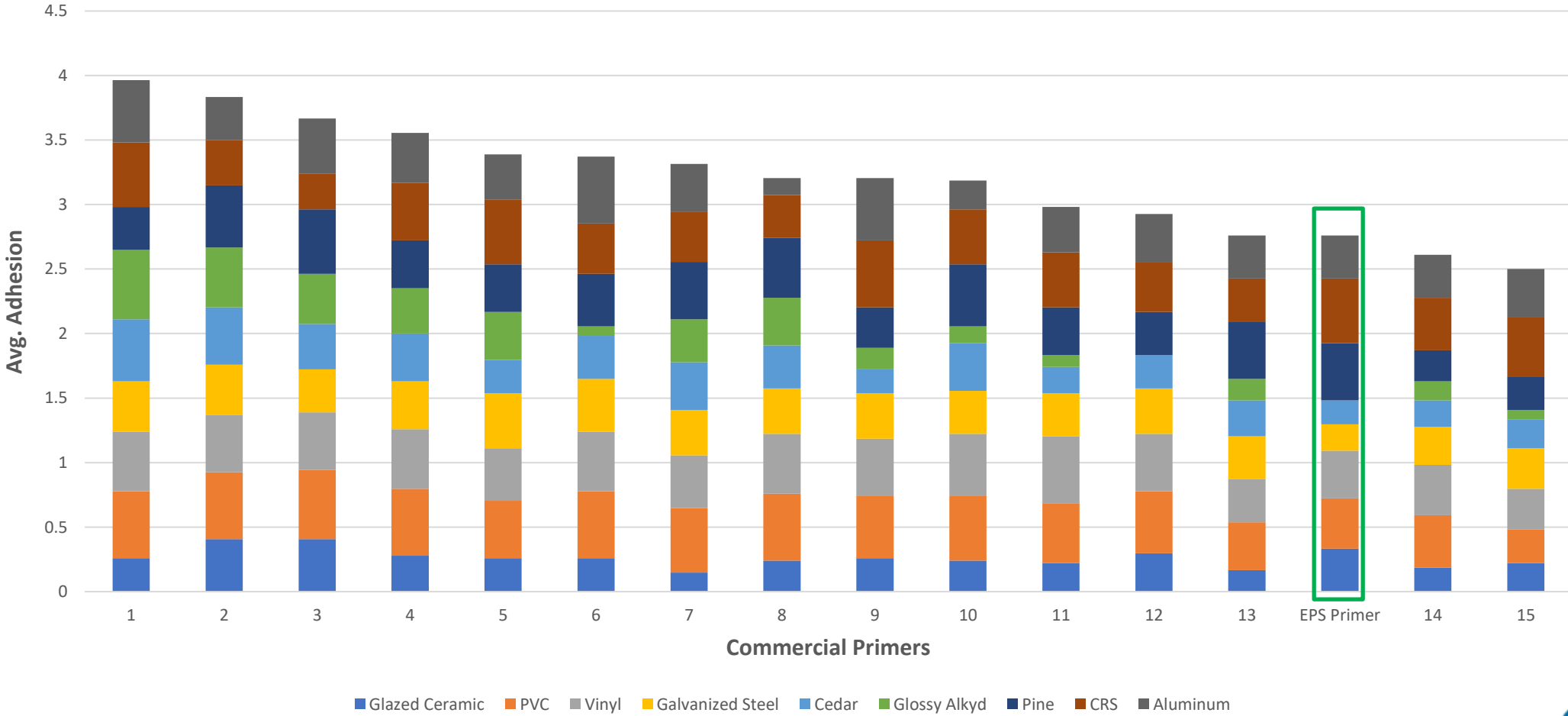
- Redwood substrate
- Topcoat w/ EPS paint
- 72 hours in QCT cabinet

Ink Stain Blocking

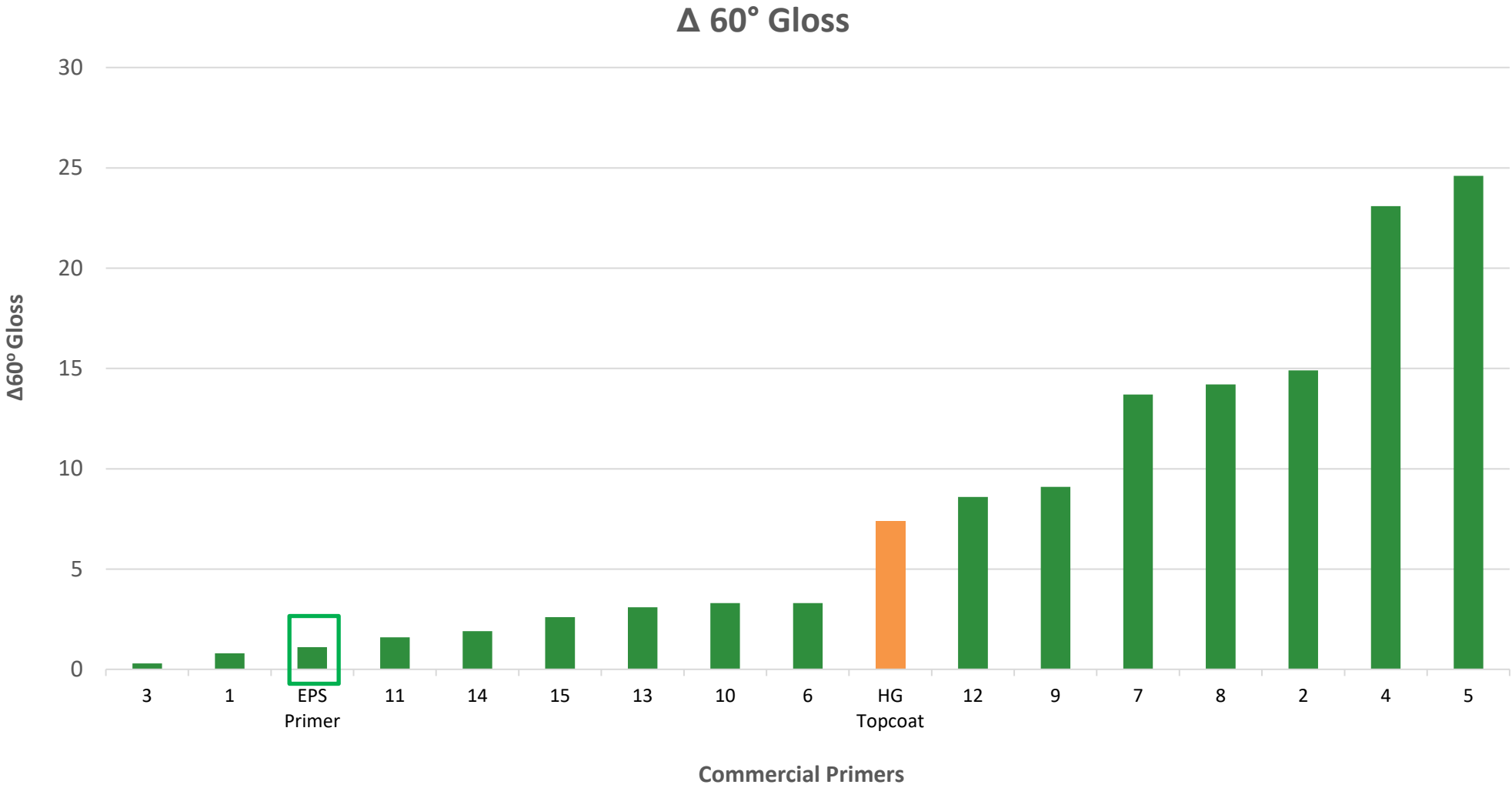
- Red Magnum Sharpie
- Black Marks-a-Lot
- Blue Crayola Window Marker
- Green Crayola Window Marker
- Covergirl 305 Lipstick

Commercial Benchmark Study 1

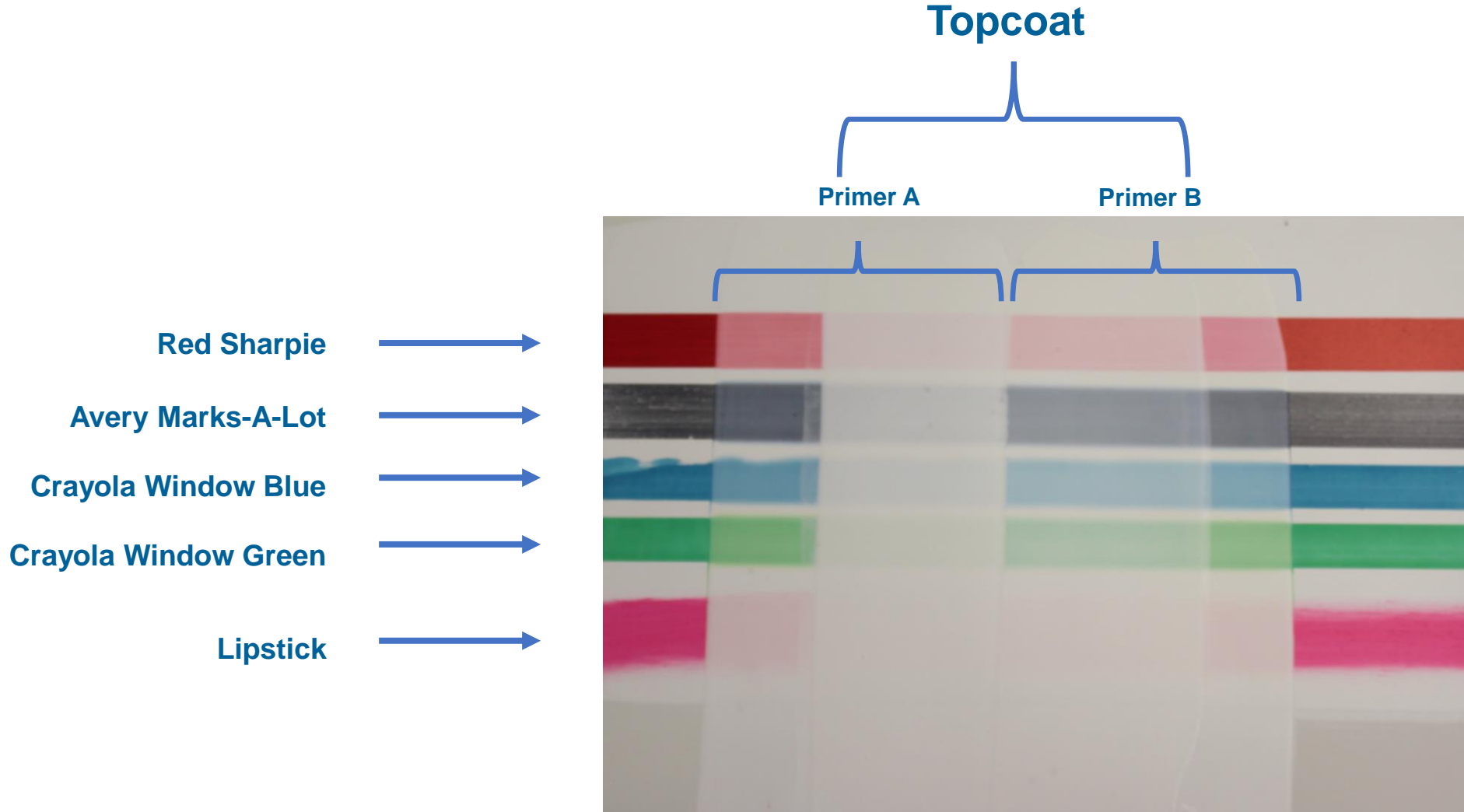
ASTM Adhesion



Commercial Benchmark Study I - Enamel Holdout

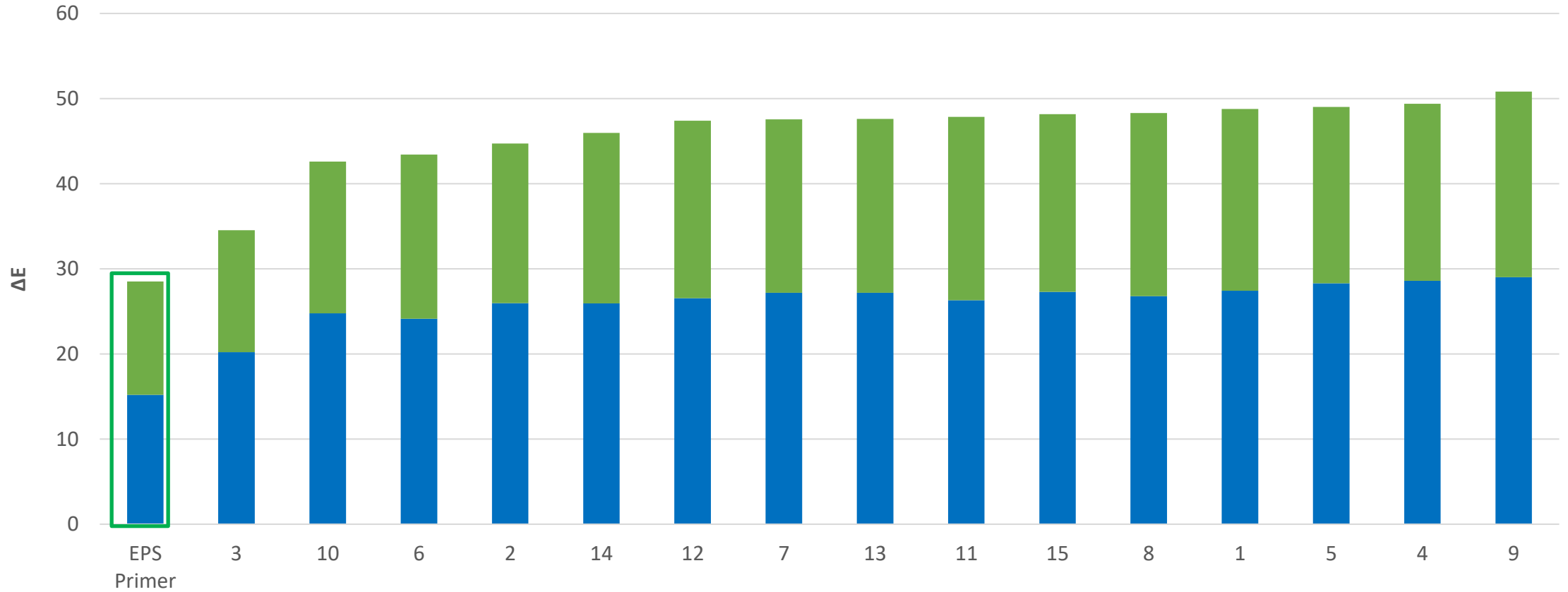


Stain Blocking Methodology



Commercial Benchmark Study I: Ink Stain-Blocking

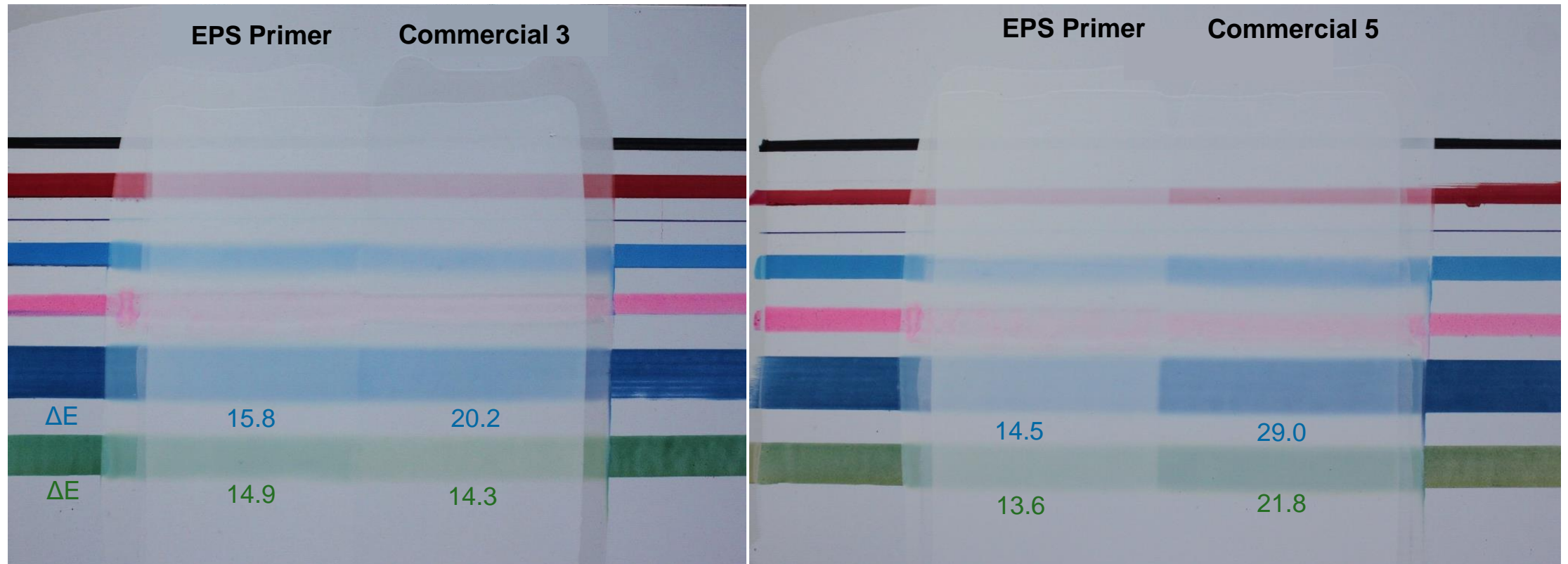
Ink Blocking ΔE



Commercial Primers

■ MARKS-A-LOT Washable Blue ■ Crayola Green Window Marker

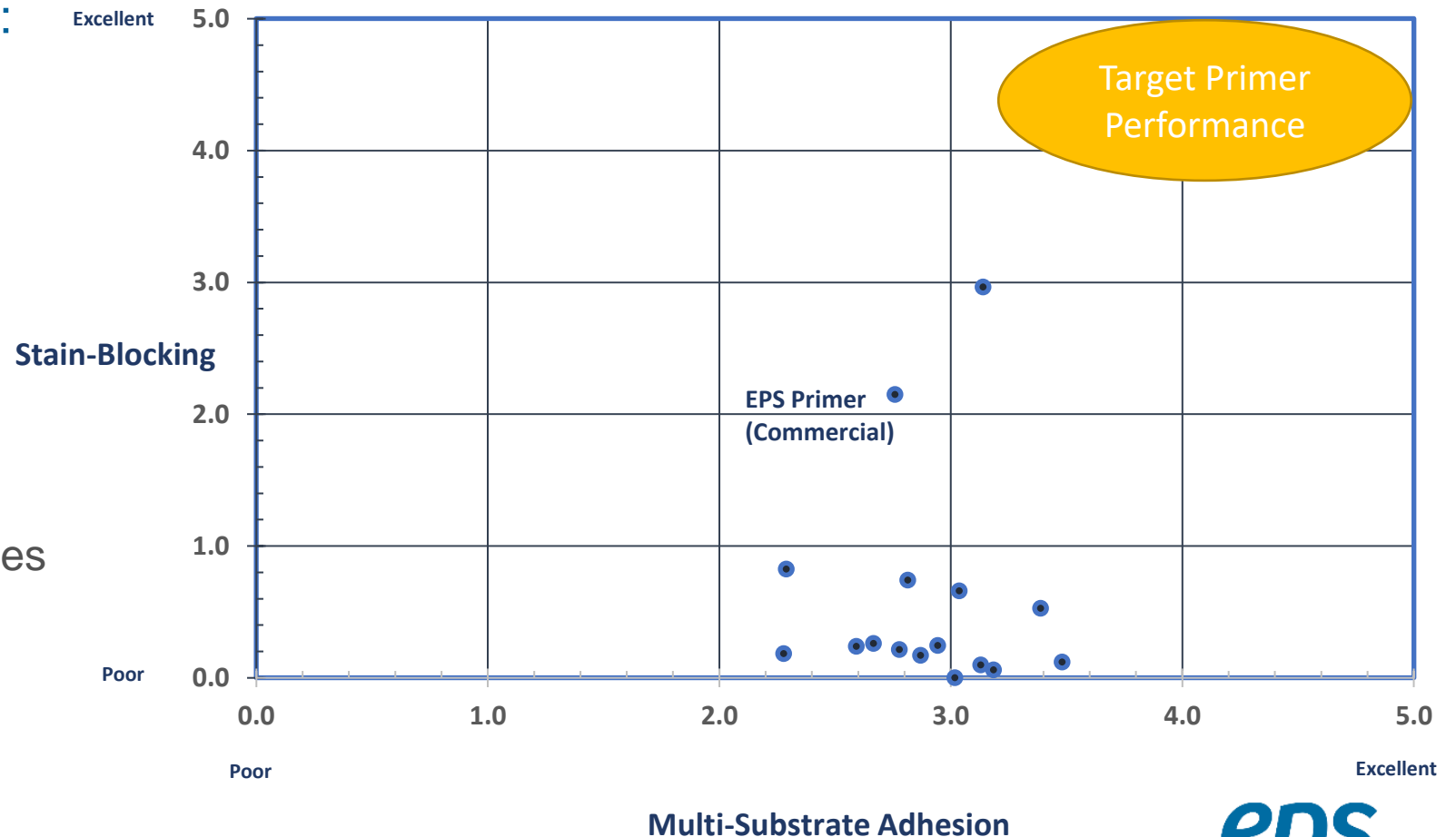
Commercial Benchmark Study I- Ink Stain-Blocking



Architectural Primer Market Snapshot – Benchmark 1

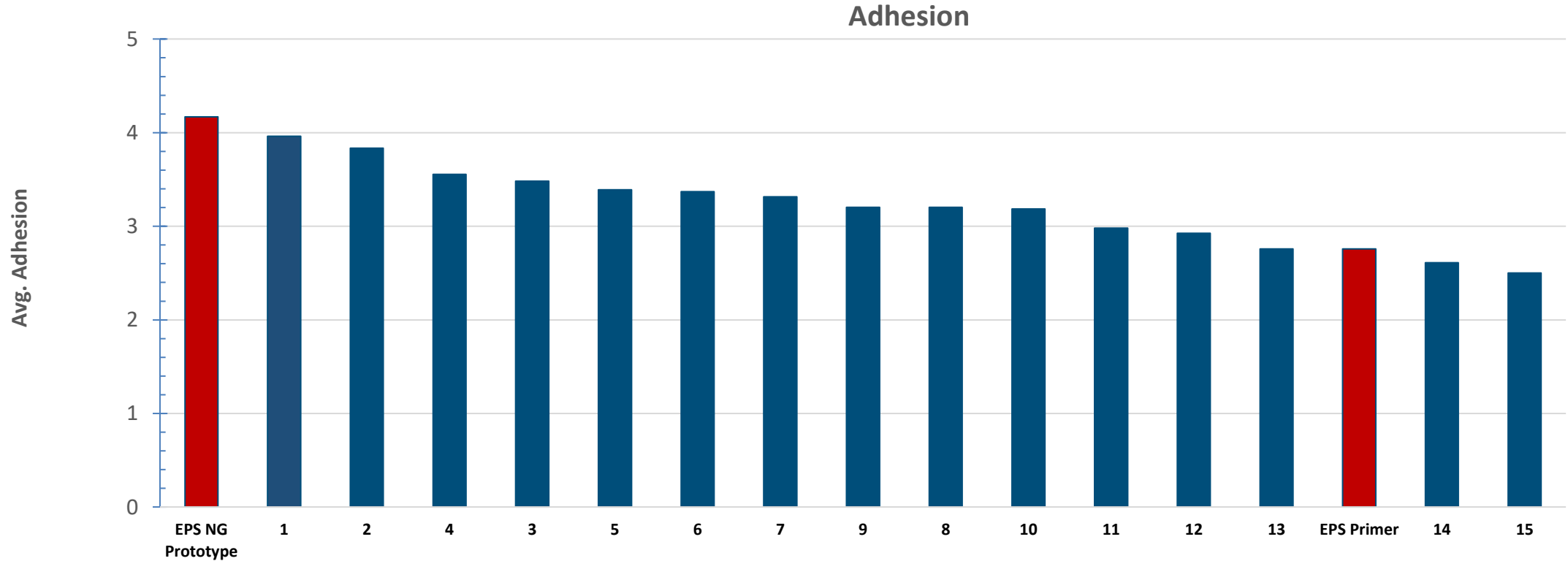
NG Primer Project Requirements:

- Improved adhesion to a broader base of substrates
- Demonstrably improved stain blocking of water-based stains
- Maintain enamel holdout
- Maintain exterior properties
 - Tannin
 - Highly alkaline substrates
 - Grain crack
- **Near Zero VOC capable**



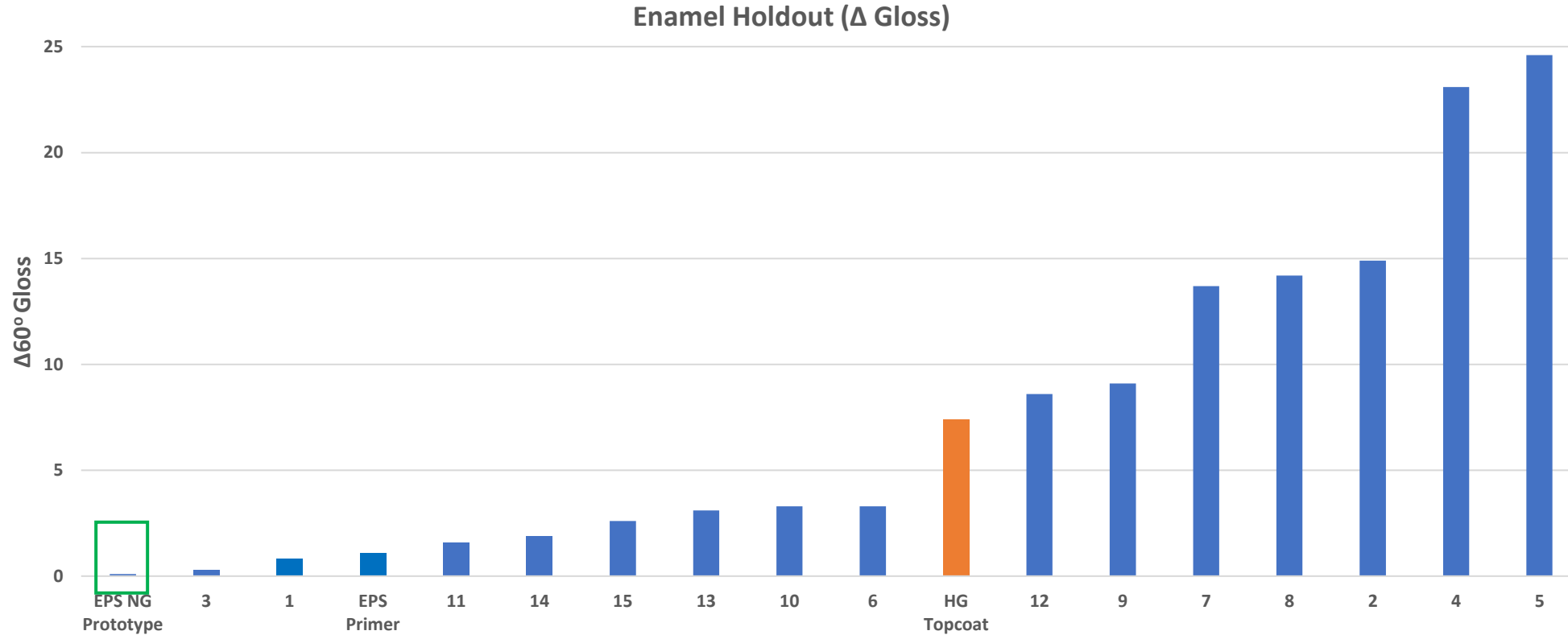
Multi-Substrate Adhesion

EPS Prototype Primer - Adhesion

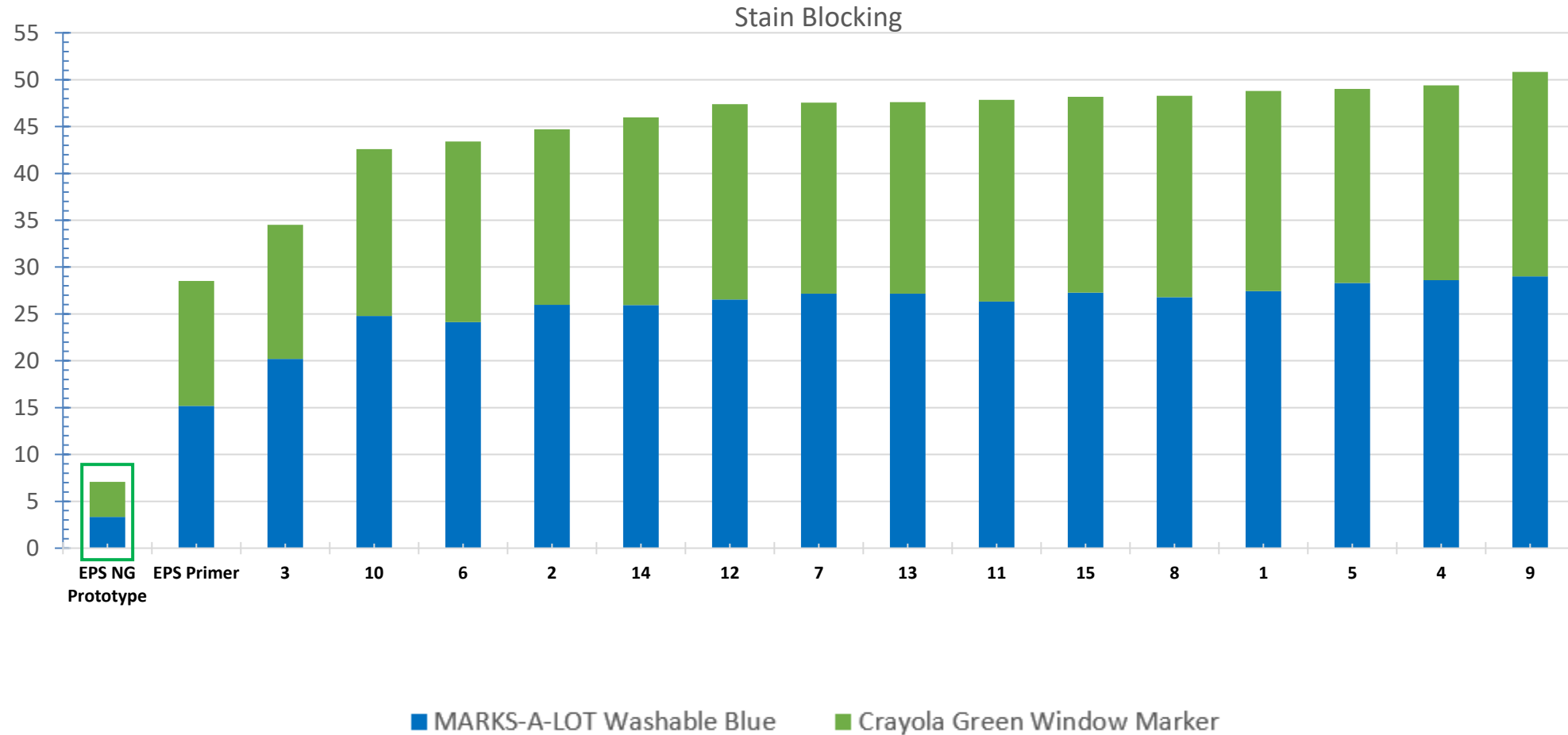


Commercial Primers

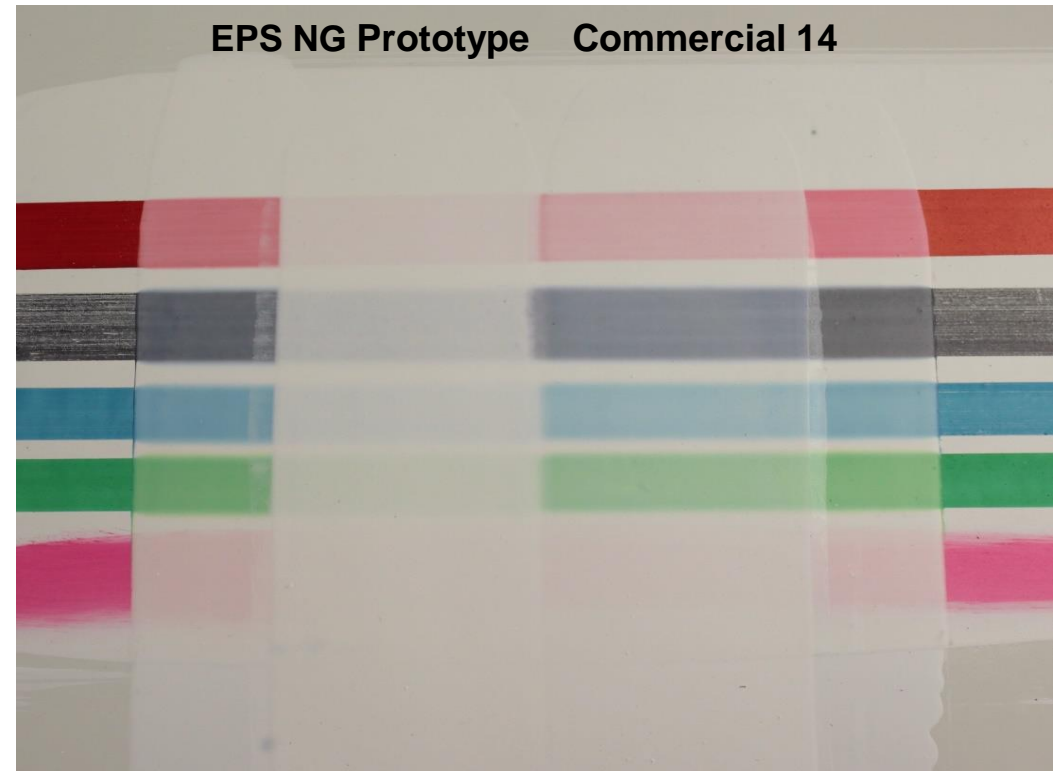
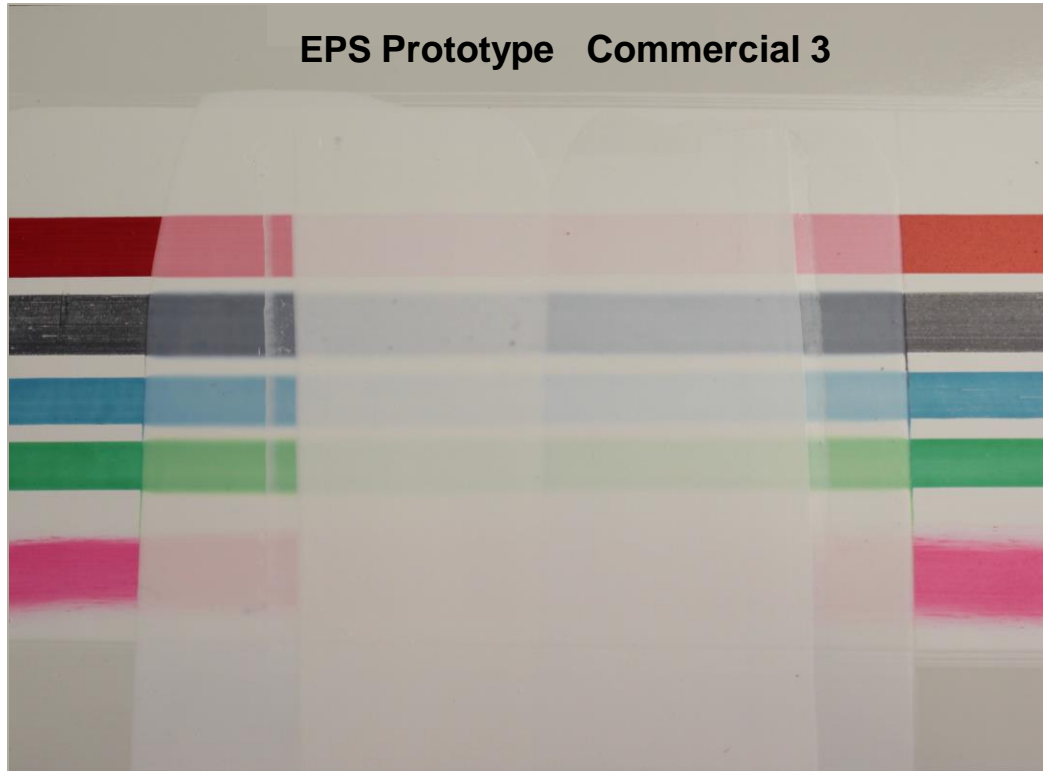
EPS Prototype Primer – Enamel Holdout



EPS Prototype Primer – Stain Blocking



EPS NG Prototype



Benchmark Evaluation II

Solvent Primers:

- Alkyd and shellac based
- High VOC, odor
- Sold under Qt exemption
- Very hydrophobic
- Chemical advantage in blocking water-based stains

Data set will be finalized and presented at WCS in October

Next Gen Int/Ext Primer Polymer

EPS NG Primer: Industry Leading Primer Polymer

- ✓ Improved multi-substrate adhesion
- ✓ Outstanding stain-blocking
- ✓ Near zero VOC, low odor
- ✓ Excellent Alkali Resistance
- ✓ Excellent Enamel holdout
- Exterior grain crack resistance

QUESTIONS?