

### Performance, Variety, Flexibility



ClearShield water-based liquid coatings offer the same protection as film laminates while saving as much as 60% in production costs. UV-protection, chemical resistance, abrasion resistance and flexibility are just some of the benefits of protecting your digital prints with ClearShield liquid coatings. To ensure maximum protection our coatings are specifically formulated for a variety of inks and applications such as banners, wall coverings, canvas prints and vehicle graphics.

#### Performance

**ClearShield liquid coatings** offer industry leading UV-protection, chemical resistance, and mar resistance. Our state of the art UV-inhibitors and HALS (hindered amine light stabilizers) provide superior protection for less. Long term UV stability is dependent on many factors including coating thickness, type of ink used, and the type of substrate coated.

#### Application Methods

##### Manual "Brush & Roll" Application

→ Use the ClearShield coating as supplied, brush and roll onto your print using a short-nap roller or a white high-density foam roller. Apply two coats, waiting approximately an hour between coats for the ClearShield to completely dry.

##### Automated Liquid Laminators

→ ClearShield can be used on most automatic flood coaters, including the StarLam 1600R Roll-to-Roll liquid laminator.

##### HVLP Spray Gun

→ ClearShield is easy to apply using an HVLP gravity-fed spray gun. We recommend using a 1.3 to 1.6mm tip and a psi of 45 - 55.

#### Applications

- **Banners**
- **Billboards**
- **Canvas Prints**
- **Signage**
- **Wall Covering**
- **Vehicle Graphics**
- **Truck-Side Curtains**

#### Physical Properties

##### Viscosity

- ClearShield Classic 30 - 35 sec. Zahn # 3
- ClearShield Classic Lite 20 - 26 sec. Zahn # 2

##### VOC

- 48 g/L

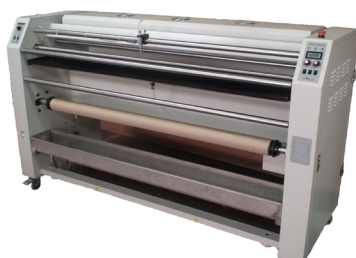
##### PH

- 8.5 - 9.0



# ClearShield® Liquid Coatings

FORMULATION	DESCRIPTION	HOW TO APPLY	FINISHES
<b>ClearShield Classic</b>	Our highest viscosity formulation and also the thickest film build of all of our ClearShield formulations. ClearShield Classic is formulated for use with non-water-sensitive media and ink. It is perfect for coating vinyl banners and suitable for vertical applications.	<ul style="list-style-type: none"> <li>• Short-Nap Roller</li> <li>• High-Density Foam Roller</li> </ul>	<ul style="list-style-type: none"> <li>• Gloss</li> <li>• Semi-Gloss</li> <li>• Matte</li> </ul>
<b>ClearShield Classic Lite</b>	Lower in viscosity than ClearShield Classic while offering the same great protection and media compatibility. ClearShield Classic Lite can be applied by roller or automated spray equipment.	<ul style="list-style-type: none"> <li>• Short-Nap Roller</li> <li>• High-Density Foam Roller</li> <li>• Spray Gun</li> </ul>	<ul style="list-style-type: none"> <li>• Gloss</li> <li>• Semi-Gloss</li> <li>• Satin</li> <li>• Matte</li> </ul>
<b>ClearShield Wall Armor</b>	Our newest ClearShield formulation, Wall Armor is a Type II Certified solution for wall covering applications. Wall Armor is compatible with latex, eco-solvent and UV inks and is both scratch & stain resistant.	<ul style="list-style-type: none"> <li>• Short-Nap Roller</li> <li>• High-Density Foam Roller</li> <li>• Spray Gun</li> <li>• StarLam Liquid Liquid Laminator or other liquid laminators</li> </ul>	<ul style="list-style-type: none"> <li>• Satin</li> </ul>
<b>ClearShield Canvas Guard</b>	ClearShield Canvas Guard is specifically formulated for water-resistant canvas and Gicleé applications. Canvas Guard is highly flexible, allowing the user to stretch the canvas after coating. If you're coating with a liquid laminator, ask about Canvas Guard for the StarLam, our canvas formulation for use with automated laminating equipment!	<ul style="list-style-type: none"> <li>• Short-Nap Roller</li> <li>• High-Density Foam Roller</li> <li>• Spray Gun</li> <li>• StarLam Liquid Liquid Laminator or other liquid laminators (Canvas Guard for the StarLam only)</li> </ul>	<ul style="list-style-type: none"> <li>• Gloss</li> <li>• Semi-Gloss</li> <li>• Satin</li> <li>• Matte</li> </ul>
<b>Production Clear</b>	Production Clear is formulated for use over UV-curable and eco-solvent inks. It is ideal for hard substrates and also can be used as a primer for ClearShield Anti-Graffiti.	<ul style="list-style-type: none"> <li>• Short-Nap Roller</li> <li>• High-Density Foam Roller</li> <li>• Spray Gun</li> </ul>	<ul style="list-style-type: none"> <li>• Gloss</li> <li>• Semi-Gloss</li> <li>• Matte</li> </ul>
<b>ClearShield Anti-Graffiti</b>	ClearShield Anti-Graffiti is highly flexible and highly chemical resistant. Anti-Graffiti is perfect for applications in high-traffic areas and makes the surface easy to clean.	<ul style="list-style-type: none"> <li>• Short-Nap Roller</li> <li>• High-Density Foam Roller</li> <li>• Spray Gun</li> </ul>	<ul style="list-style-type: none"> <li>• Gloss</li> </ul>



The StarLam 1600R Roll-to-Roll Liquid Laminator is easy to operate and applies a smooth, even layer of ClearShield Liquid Coatings over a variety of substrates. The StarLam is ideal for large volume production environments and store-front shops alike. For more information on the StarLam 1600R Roll-to-Roll laminator, visit us online at [www.marabu-northamerica.com](http://www.marabu-northamerica.com)