Cardinal’s U1PA-FE02 is a UV cured wood pore filler on a variety of wood. Characteristics include; rapid cure response with excellent sand-ability and good inter-coat adhesion. This product low shrinkage, and provides excellent pore filling capability on many types of wood in one or two coats. The gel filler has been formulated with low irritancy ingredients, and does not contain styrene.

**TYPICAL USES:**
- Fine musical instruments

**BENEFITS:**
- No VOC
- Fast Cure
- Excellent Clarity

**CURED FILM PROPERTIES:**
Testing was conducted on a variety of different wood types which had been sealed, filled and topcoated.

<table>
<thead>
<tr>
<th>TEST</th>
<th>METHOD</th>
<th>PARAMETERS</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhesion</td>
<td>ASTM D3359</td>
<td>Cross-hatch tape</td>
<td>0% failure</td>
</tr>
<tr>
<td>Hardness</td>
<td>ASTM D3363</td>
<td>Pencil</td>
<td>5H-6H</td>
</tr>
<tr>
<td>Humidity</td>
<td>ASTM D2247</td>
<td>50 hrs</td>
<td>No effect</td>
</tr>
</tbody>
</table>

**APPLICATION:**

**Spray**
1. Seal wood with Cardinal’s 6779-CLE16866 Urethane Sealer, let dry at least one hour.
2. Scuff sand with 220-400 grit.
3. Apply filler sparingly with cloth, sponge or squeegee, then clean off the excess filler from the surface.
4. Cure immediately. Repeat if desired.
5. Sand to 220-400 before Recoat.
6. Topcoat with your choice of Cardinal UV, Nitro or Urethane instrument topcoats.

**REPAIR: IN DEVELOPMENT.**

**Note:**
These recommendations are only a suggestion and do not imply that other products and techniques currently being used won’t work. All procedures and materials used must be tested and approved by the applicator.

**TYPE:** 100% Solids UV Gel Filler

**COMPONENTS:** One

**COLORS:** Clear

**MINIMUM ORDER:** 1 qt. of U1PA-FE02.

**COVERAGE:** At 1.0 mil DFT, 100% transfer efficiency (TE) is 1604 ft²/gal.

Calculation: 1604 ft²/gal x % volume solids x TE ÷ DFT

**VOC MIXED:** 0 grams/liter = 0.00 lbs/gal minimum.

**SOLIDS:**
- Weight ……………………… 100%
- Volume ……………………. 100%

**FLASH POINT:** 24°F TCC

**SHELF LIFE:** 1 year from date of manufacture in factory

**VISCOSITY:** 18-20 seconds in Zahn 2

**SPRAY-able Pot Life:** NA

**CURE:** No Flash Needed

Cure conditions: 2 minutes
- UVA 3.18 J
- UVB 1.80 J

(At 1.0 mils dry film thickness, 78°F, 50% RH)

This coating must be used only in a well ventilated area!

Keep this coating away from any and all sources of ignition!

(Continued on page 2)
Important: Warranty and Disclaimer — The performance characteristics of these products vary according to product application, operating conditions, materials applied to or with and use. Since these factors can affect results, we strongly recommend that you make your own test to determine to your satisfaction whether the product is of acceptable quality, has not been affected by storage or transport and is suitable for your particular purpose under your own operation conditions prior to using any product in full scale production. Seller warrants the products to be free from defects in materials and workmanship. SUCH WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE. No representative of ours has authority to waive or change this provision, which applies to all sales of these products.

Surface Preparation and Sealing: The most important steps in a successful coating process are cleaning and sealing. The wood's surface should be free of any dust or dirt before application of sealer. If a pore filler is being used the surface should be cleaned, sanded and sealed before applying U4UA-CLE15 or other Cardinal recommended product.

Cleaning the Substrate: The surface of wood should be cleaned with either acetone or Mineral spirits to remove any oils, grease or other contaminants. The surface must be thoroughly dry before painting. Air quality regulations have limited the allowable emissions from cleaning operations.

Plastic — Any vinyl or other plastic products that might be coated over with this finish should have the adhesion verified before use.

Sealer Selection:

<table>
<thead>
<tr>
<th>Product No.</th>
<th>Description</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>6779-CLE16866</td>
<td>Urethane Isolante Sealer</td>
<td>Sealing the wood surface to accept a top coat or fillers.</td>
</tr>
</tbody>
</table>

Related Products:

<table>
<thead>
<tr>
<th>Product No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>U4PA-CLE25</td>
<td>UV curable Sanding Sealer</td>
</tr>
<tr>
<td>U4PA-CLE22</td>
<td>UV Curable Styrene Polyester Gloss Clear</td>
</tr>
<tr>
<td>1600-02</td>
<td>Medium Urethane thinner</td>
</tr>
<tr>
<td>1600-03</td>
<td>Slow Urethane Reducer</td>
</tr>
<tr>
<td>6S00-Series</td>
<td>Urethane Color Coats</td>
</tr>
</tbody>
</table>

Application Equipment: Most air quality regulations require the paint application transfer efficiency to be 65% or better. This generally means using electrostatic or high volume low pressure (HVLP) spray guns. Otherwise, conventional pressure feed, airless or air assisted airless spray equipment can be used. Air supply lines need water and oil traps.

Equipment Clean-up: Clean up should be done as soon as possible keeping in mind the pot life of the mixed paint. Air quality regulations have limited the allowable emissions from cleaning operations.

Product Limitations:

- This U1PA-FE02 was designed for fine musical instrument and the normal environmental condition that they would be exposed. All precautions should be taken to avoid extreme conditions such as: excessive heat, extended cold temperatures, chemicals which would damage coating or excessive abrading with guitars strap and other abrasive objects.

Safety: Refer to the product’s Material Safety Data Sheet (MSDS) for complete safety information. Contains organic solvents. Use with adequate ventilation. Do not breathe vapors or spray mists. If component TLVs are exceeded, a NIOSH approved air supplied respirator is advised. See MSDS for TLV information. Contents are FLAMMABLE. Keep from heat, sparks or open flame. Allergic reactions are possible. Avoid use by persons with respiratory problems. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

First Aid:

- Eye contact: flush immediately with plenty of water for at least 15 min. and get medical attention.
- Skin contact: wash thoroughly with soap and water for 5 minutes.
- If swallowed, do not induce vomiting and get medical attention immediately.