ESSS Single Stage Polyurethane Enamel is a two-component product designed to offer good gloss and a wide array of solid and metallic colors. It is available as a 2.8 VOC topcoat and can be used over all properly prepared OEM finishes, cured air-dried finishes, as well as any *Delfleet®* Essential primer.

### Additional Products
- **Essential Color** ESSS
- **Hardener** ESH200
- **Fast Activator** ESX500
- **Standard Activator** ESX510
- **Slow Activator** ESX520
- **Very Slow Activator** ESX530
- **New Slow Activator** ESX540

### Compatible Surfaces
ESSS may be applied over:
- Properly cleaned and sanded OEM enamels and cured finishes
- ESU400
- ESU410
- ESU420/ESU421
- ESU430

When sanding prior to the application of ESSS topcoat, use 220 – 320 grit wet or dry.

### Selection of Substrate Cleaner
<table>
<thead>
<tr>
<th>Code</th>
<th>Product</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>DX436</td>
<td>Wax &amp; Grease Remover</td>
<td>Suitable for removing dirt, grease or other contaminants before or during the painting process.</td>
</tr>
<tr>
<td>DX437</td>
<td>Heavy Duty Wax &amp; Grease Remover</td>
<td>Used to remove heavy milling oils and grease from bare substrates prior to the painting process.</td>
</tr>
</tbody>
</table>
### Application Guide

**Mixing Ratio:**
- 6 ESSS
- 1 ESH200
- 1 ESX500/510/520/530/540

**Pot Life:**
2 hours @ 70°F (21°C) / 50% RH

**NOTE:** High heat and humidity will shorten pot life

**Pressure Pot Set-up:**
- HVLP: 1.0-1.4 mm with 8-12 fluid ounces per minute
- Conventional: 1.0-1.4 mm with 8-12 fluid ounces per minute

**Flash Off:**
5 – 10 minutes @ 70°F (21°C) before stoving

**Total Film Build:**
- **Wet**
  - Minimum 2.0 - 4.0 mils per coat
- **Dry**
  - Minimum 2.0 - 4.0 mils total DFT

**Theoretical Coverage:**
765-860 sq. ft. (Color formula dependent)

Theoretical coverage in sq. ft. /US gal. Ready-to-spray (RTS), giving 1mil. (25μm) dry film thickness (Assuming 100% Transfer Efficiency)

### Spray Viscosity:

- #2 ZAHN CUP = 20-30 seconds

### Spray gun Set-up:

<table>
<thead>
<tr>
<th>HVLP</th>
<th>Conventional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluid Tip</td>
<td>1.3–1.7 mm</td>
</tr>
<tr>
<td>Air Pressure</td>
<td>8-10 PSI at the cap</td>
</tr>
</tbody>
</table>

**Number of Coats:**
Two coats with 10 minute flash between coats

**Dry Times**
- Dust-free: 30-60 minutes
- Tape Time: 2-4 hours @ 68°F (20°C)
- Overcoat/Recoat: 72 hours @ 68°F (20°C)

**Performance Comments:**
Wash and Etch primers must be sealed before applying topcoat for optimum performance.

**Physical Characteristics:**
- Total Solids By Weight (RTS) 51.0% - 69.9%
- Total Solids By Volume (RTS) 47.0% - 53.0%

### RTS Combinations:

<table>
<thead>
<tr>
<th>Volume Ratio</th>
<th>ESSS color</th>
<th>ESSS : ESH200 : ESX5X0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Package (as is)</td>
<td>6 : 1 : 1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Applicable Use Category</th>
<th>Single-Stage Ctg</th>
<th>Single-Stage Ctg</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC Actual (g/L)</td>
<td>248 - 302</td>
<td>233 - 273</td>
</tr>
<tr>
<td>VOC Actual (lbs/gal)</td>
<td>2.07 - 2.52</td>
<td>1.94 - 2.28</td>
</tr>
<tr>
<td>VOC Regulatory (less water less exempt) (g/L)</td>
<td>334 - 337</td>
<td>326 - 331</td>
</tr>
<tr>
<td>VOC Regulatory (less water less exempt) (lbs/gal)</td>
<td>2.79 - 2.81</td>
<td>2.72 - 2.76</td>
</tr>
<tr>
<td>Density (g/L)</td>
<td>968 - 1257</td>
<td>1037 - 1230</td>
</tr>
<tr>
<td>Density (lbs/gal)</td>
<td>8.08 - 10.49</td>
<td>8.65 - 10.26</td>
</tr>
<tr>
<td>Volatiles wt. %</td>
<td>30.1 - 46.7</td>
<td>36.0 - 49.0</td>
</tr>
<tr>
<td>Water wt. %</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Exempt wt. %</td>
<td>6.1 - 22.2</td>
<td>13.8 - 26.8</td>
</tr>
<tr>
<td>Water vol. %</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Exempt vol. %</td>
<td>9.8 - 26.2</td>
<td>16.6 - 28.9</td>
</tr>
</tbody>
</table>

### Health and Safety

Please refer to Material Safety Data Sheets (MSDS) for full health safety details and storage regulations.

EMERGENCY MEDICAL OR SPILL CONTROL INFORMATION (412) 434-4515; IN CANADA (514) 645-1320.

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