POLYGLIDE® DRY FILM LUBRICANT may be applied to all metallic substrates to improve stamping and formability performance. POLYGLIDE has been proven effective on stainless steel, carbon steel and aluminized-coated products.
Product Description

POLYGLIDE® is a polymeric dry-film lubricant coating with air-dry attributes. After application, it is completely dry to the touch and provides a low coefficient of friction that is superior to conventional oil lubrication. The coating creates a 100% film protection that does not migrate like oil. The polymeric film prevents die-to-part contact which enhances die life, reduces heat, and removes metal-to-metal contact contraints allowing material to more easily flow through dies. POLYGLIDE is weldable via metal inert gas (MIG) and spot-welding techniques. POLYGLIDE creates no discernible odor as verified by industrial hygienists. POLYGLIDE is detectable under UV light for inspection purposes.

AVAILABLE FORMS:

POLYGLIDE can be applied to material in gauges from 0.010 – 0.125 in. (0.254 – 3.175 mm) and widths up to and including 72 in. (1828.8 mm).

For specific gauge and width capability, please contact your AK Steel sales representative.

ADVANTAGES

- Applicable to all metallic substrates
- Thermoplastic
- Water based, dry to touch, polymeric dry film lube
- Must be dry stamped
- Low coefficient of friction
- Coating weight range = 100 – 150 mg/ft.²
- Surface protectant properties
- Formable
- Weldable
- Removable with an alkaline cleaner
- Can be temper rolled
- Detectable under UV light
Properties

POLYGLIDE® has a lower coefficient of friction than typical mill oils or prelubes, minimizing migration in high-pressure areas and ultimately, the undesirable metal-to-metal contact within a die. The lower coefficient of friction also indicates less risks for fractures, tears, or cracks. Stainless Steel material coated with POLYGLIDE exhibited higher Limiting Draw Ratio and Limiting Dome Height results, indicating better flow and formability than the same material coated with mill oil and prelubes. The higher flow and formability inherent to POLYGLIDE support improved stamping consistency.

**FIGURE 1 – COEFFICIENT OF FRICTION**

<table>
<thead>
<tr>
<th></th>
<th>POLYGLIDE®</th>
<th>Mill Oil</th>
<th>Prelube</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coefficient</td>
<td>0.110</td>
<td>0.119</td>
<td>0.113</td>
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</tbody>
</table>

**FIGURE 2 – STAINLESS STEEL LIMITING DRAW RATIO**

<table>
<thead>
<tr>
<th></th>
<th>POLYGLIDE®</th>
<th>Mill Oil</th>
<th>Prelube</th>
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</thead>
<tbody>
<tr>
<td>Limiting Draw Ratio</td>
<td>2.3</td>
<td>2.0</td>
<td>2.1</td>
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</table>

**FIGURE 3 – STAINLESS STEEL LIMITING DOME HEIGHT**

<table>
<thead>
<tr>
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<th>POLYGLIDE®</th>
<th>Mill Oil</th>
<th>Prelube</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limiting Dome Height (in.)</td>
<td>1.38</td>
<td>1.27</td>
<td>1.32</td>
</tr>
</tbody>
</table>

Better
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AK Coatings, Inc is a wholly owned subsidiary of AK Steel.

AK Steel is a leading producer of flat-rolled carbon, stainless and electrical steel products, primarily for the automotive, infrastructure and manufacturing, including electrical power, and distributors and converters markets. Through its subsidiaries, the company also provides customer solutions with carbon and stainless steel tubing products, die design and tooling, and hot- and cold-stamped components. Headquartered in West Chester, Ohio (Greater Cincinnati), the company has approximately 9,500 employees at manufacturing operations in the United States, Canada and Mexico, and facilities in Western Europe. Additional information about AK Steel is available at www.aksteel.com.

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Data referring to material properties are the result of tests performed on specimens obtained from specific locations of the products in accordance with prescribed sampling procedures; any warranty thereof is limited to the values obtained at such locations and by such procedures. There is no warranty with respect to values of the materials at other locations.

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