**GRA 34/20**

**PRESENTATION**
Water based die lubricant for copper and aluminium extrusion process.

**PROPERTIES**
- GRA 34 / 20 produces a highly thermal and mechanical resistant graphite based coating. It permanently resists to temperature exceeding 450 °C, and allows efficient lubrication in metal extrusion process.
- GRA 34 / 20 has a specific rheology allowing a leaf effect at high temperature. This specific property makes GRA 34 / 20 efficient in long deformations.
- GRA 34 / 20 has a high covering power and stops metallic diffusion on die alloy.
- GRA 34 / 20 prevents dies from thermal shocks.
- GRA 34 / 20 can be applied on very hot metallic surfaces (> 450 °C).
- GRA 34 / 20 can be used as a pre-coating for die lubrication particularly for first part forming.

**ADVANTAGES**
- Allows tool life increase
- Exceptional lubricant coating life: the graphite based coating allows to make long metal deformation without film break problem.
- High operating temperature capability: GRA 34 / 20 can be applied on very hot surfaces and keeps its properties.
- GRA 34 / 20 does not emit smoke and is not toxic.

**PHYSICAL CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Carrier</th>
<th>Methods</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>WITHOUT</td>
<td>Black viscous fluid</td>
</tr>
<tr>
<td>pH</td>
<td>MCC 67</td>
<td>8</td>
</tr>
<tr>
<td>Specific gravity at 20°C</td>
<td>MCC 168</td>
<td>1000 - 1100 kg/m3</td>
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</tbody>
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MCC = Condat's Control Method

**METHOD OF USE**
GRA 34 / 20 can be applied by spray or dipping. It is highly recommended to maintain diluted product at a temperature below 60°C, and to stir during operation.
GRA 34/20 is a product ready for use.