Diamond Compound

FOR HIGH-QUALITY MOLD AND DIE POLISHING

Quality of mold or die finish is frequently an important factor in how a mold or die operates. D-M-E Diamond Compound is proven to produce the finest quality finish with considerable savings in time and labor.

D-M-E Diamond Compound contains no adulterants, nor non-graded, non-working diamond “fines”. The precision-graded diamond particles are uniformly and permanently dispersed and blended in a high-quality, universally soluble, synthetic vehicle; giving the best composition possible. It will not “cake” or dry out and is completely stable at temperatures from –50°F to +150°F, permitting high-speed mechanical polishing operations.

Available in 2½ gram, 5 gram, and 18 gram sizes.

Since D-M-E Diamond Compound is not water soluble, the use of water as a thinning agent is not recommended. For best results, use D-M-E THINNER LUBRICATOR to reduce the compound to its most efficient working consistency.

<table>
<thead>
<tr>
<th>FINISH</th>
<th>ITEM NUMBER</th>
<th>LABEL COLOR GUIDE</th>
<th>NAT’L BUR. STD. GRADE</th>
<th>MICRON SIZE RANGE†</th>
<th>COMPOUND NUMBER AND DIAMOND CONTENT</th>
<th>APPROX. MESH EQUIVALENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final ultra-mirror polishing of plastics mold cavities.</td>
<td>DC-OOH</td>
<td>Pink</td>
<td>¼</td>
<td>0-½</td>
<td>½-Heavy</td>
<td>100,000</td>
</tr>
<tr>
<td></td>
<td>DC-OH</td>
<td>Silver</td>
<td>½</td>
<td>0-1</td>
<td>1-Heavy</td>
<td>60,000</td>
</tr>
<tr>
<td>Final high-mirror polishing of selected work such as optical quality plastics mold cavities.</td>
<td>DC-1M</td>
<td>Ivory</td>
<td>1</td>
<td>0-2</td>
<td>1-Medium</td>
<td>15,000</td>
</tr>
<tr>
<td></td>
<td>DC-1H</td>
<td>Ivory</td>
<td>1</td>
<td>0-2</td>
<td>1-Heavy</td>
<td>15,000</td>
</tr>
<tr>
<td>Final mirror-polishing of high-quality plastics mold cavities, especially those producing clear plastic parts.</td>
<td>DC-3M</td>
<td>Yellow</td>
<td>3</td>
<td>1-5</td>
<td>3-Medium</td>
<td>9,000 to 7,000</td>
</tr>
<tr>
<td></td>
<td>DC-3H</td>
<td>Yellow</td>
<td>3</td>
<td>1-5</td>
<td>3-Heavy</td>
<td>9,000 to 7,000</td>
</tr>
<tr>
<td>Final polishing of most plastics mold cavities.</td>
<td>DC-6U</td>
<td>Orange</td>
<td>6</td>
<td>4-8</td>
<td>6-Universal</td>
<td>5,000 to 2,500</td>
</tr>
<tr>
<td></td>
<td>DC-6M</td>
<td>Orange</td>
<td>6</td>
<td>4-8</td>
<td>6-Medium</td>
<td>5,000 to 2,500</td>
</tr>
<tr>
<td>Intermediate polishing of plastics mold cavities and final polishing of die cast die cavities.</td>
<td>DC-9U</td>
<td>Green</td>
<td>9</td>
<td>6-12</td>
<td>9-Universal</td>
<td>1,300</td>
</tr>
<tr>
<td></td>
<td>DC-9M</td>
<td>Green</td>
<td>9</td>
<td>6-12</td>
<td>9-Medium</td>
<td>1,300</td>
</tr>
<tr>
<td></td>
<td>DC-15U</td>
<td>Blue</td>
<td>15</td>
<td>8-22</td>
<td>15-Universal</td>
<td>1,300 to 900</td>
</tr>
<tr>
<td></td>
<td>DC-15M</td>
<td>Blue</td>
<td>15</td>
<td>8-22</td>
<td>15-Medium</td>
<td>1,300 to 900</td>
</tr>
<tr>
<td>Preliminary polishing of all plastics mold and die cast die cavities.</td>
<td>DC-30U</td>
<td>Red</td>
<td>30</td>
<td>20-40</td>
<td>30-Universal</td>
<td>800 to 550</td>
</tr>
<tr>
<td></td>
<td>DC-30M</td>
<td>Red</td>
<td>30</td>
<td>20-40</td>
<td>30-Medium</td>
<td>800 to 550</td>
</tr>
<tr>
<td></td>
<td>DC-45U</td>
<td>Brown</td>
<td>45</td>
<td>30-60</td>
<td>45-Universal</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td>DC-45M</td>
<td>Brown</td>
<td>45</td>
<td>30-60</td>
<td>45-Medium</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td>DC-170H</td>
<td>Grey-Black</td>
<td>170</td>
<td>170M-Heavy</td>
<td>120 to 80</td>
<td></td>
</tr>
</tbody>
</table>

†The smaller the micron size, the finer the finish.

Thinner Lubricator

FOR DIAMOND COMPOUND

When polishing with Diamond Compound, stock removal may cause the compound to thicken. Thinner Lubricator is recommended to prevent this thickening and assure proper lubrication of the diamond particles. It is supplied in a convenient 4-ounce squeeze bottle.
Mold Finish Comparison Kit

EXPANDED VERSION – 12 SAMPLES FINISHED TO SPI STANDARDS

- Eliminates errors or guesswork in achieving desired or specified finishes
- Saves time… eliminates over-polishing
- Provides a visual and numerical standard for specifying mold/part finishes

Professionally finished to SPI standards, this kit is an invaluable tool for both selection of finishes required and comparison to work in progress. The visual and numerical standards are also helpful in communications between end user, molder and moldmaker. Each finish has been generated on a 1” diameter x 3⁄8 -thick piece of H-13 steel. Edges are chamfered and O.D. is knurled for safe, easy pick-up and handling. Finish numbers are stamped on the back of each sample for quick reference. A molded plaque in the kit’s lid shows the part finishes that result from each mold finish.

<table>
<thead>
<tr>
<th>FINISH TYPE</th>
<th>DESCRIPTION</th>
<th>ROUGHNESS AVERAGING (RA)</th>
<th>COMMENTS</th>
</tr>
</thead>
</table>
| A-1         | grade # 3 diamond buff | 0-1 | • for mirror or optical finishes  
• most time consuming and costly finishes to achieve  
• steel grade important to results (D-M-E No. 3 or No. 5 steel recommended) |
| A-2         | grade # 6 diamond buff | 1-2 | • removes all tool and machining marks  
• provides good mold release  
• light reflecting finish on molded part, some sheen |
| A-3         | grade # 15 diamond buff | 2-3 | • removes all tool and machining marks  
• provides good mold release  
• mute finish on molded part, no sheen |
| B-1         | 600 grit paper | 2-3 | • for decorative finishes  
• often used for diecast and thermoset tooling  
• helps hide shrink marks and other imperfections  
• dull, non-reflecting finish on molded or cast part |
| B-2         | 400 grit paper | 4-5 | • for mirror or optical finishes  
• most time consuming and costly finishes to achieve  
• steel grade important to results (D-M-E No. 3 or No. 5 steel recommended) |
| B-3         | 320 grit paper | 9-10 | • removes all tool and machining marks  
• provides good mold release  
• light reflecting finish on molded part, some sheen |
| C-1         | 600 stone | 10-12 | • for mirror or optical finishes  
• most time consuming and costly finishes to achieve  
• steel grade important to results (D-M-E No. 3 or No. 5 steel recommended) |
| C-2         | 400 stone | 25-28 | • removes all tool and machining marks  
• provides good mold release  
• mute finish on molded part, no sheen |
| C-3         | 320 stone | 38-42 | • for mirror or optical finishes  
• most time consuming and costly finishes to achieve  
• steel grade important to results (D-M-E No. 3 or No. 5 steel recommended) |
| D-1         | dry blast glass bead #11 (8” distance at 100 psi; 5 secs.) | 10-12 | • for decorative finishes  
• often used for diecast and thermoset tooling  
• helps hide shrink marks and other imperfections  
• dull, non-reflecting finish on molded or cast part |
| D-2         | dry blast # 240 oxide (5” distance at 100 psi; 6 secs.) | 26-32 | • for decorative finishes  
• often used for diecast and thermoset tooling  
• helps hide shrink marks and other imperfections  
• dull, non-reflecting finish on molded or cast part |
| D-3         | dry blast # 24 oxide (6” distance at 100 psi; 5 secs.) | 190-230 | • for decorative finishes  
• often used for diecast and thermoset tooling  
• helps hide shrink marks and other imperfections  
• dull, non-reflecting finish on molded or cast part |