Formulated and manufactured by Freeman, this extremely hard, synthetic material machines faster than polyurethane and epoxy tooling boards or metals without sacrificing quality of finish, surface detail, or dimensional accuracy. Machinable Wax features a combination of properties unique to the tooling and prototyping world. Most notable is its non-abrasive, self-lubricating, and self-releasing characteristics, which make it an ideal material for many challenging applications.

DID YOU KNOW?

We have a Machinable Wax video ready to watch!

Our Video Library is available on our website, www.FreemanSupply.com, or on our YouTube channel @freemanmfg. We feature over three hours of instructional and product videos, offering the most comprehensive free resource for the making of parts, patterns, tools and molds. We also have all our videos available for purchase on eBay! Start watching today!
Standard and custom sizes are available in three formulations: the original, industry-standard Blue, the economical, user-friendly Purple, and the refined and enhanced Turquoise.

**What is Machinable Wax?**

**Qualities**

**Non-abrasive**
Unlike metal and tooling boards that can cause significant wear on cutting tools.

**User-friendly**
Machining produces chips instead of dust for a cleaner work environment.

**Self-releasing/self-sealing**
Pour liquid tooling plastics (including epoxy, urethane and silicone rubber) into Machinable Wax without requiring the use of sealers or release agents.

**Able to be glued**
Produces large or irregularly-shaped pieces for machining with the use of 3M #90 Spray Adhesive (page 3).

**Self-lubricating**
Enables all machining operations to be performed without the need for coolants or cutting fluids.

**Wide variety of sizes**
Eliminates the waste associated with using large tooling boards for smaller projects.

**Applications**

- **Molds and prototypes:** creates accurate reproductions
- **CNC:** demonstrations or proofing machining programs
- **Education:** as a training aid and project material
- **Medical/Dental:** molds for proton therapy or dental work

**Machining guidelines**

<table>
<thead>
<tr>
<th>Spindle Speed</th>
<th>Feed Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roughing</td>
<td>3,000 rpm</td>
</tr>
<tr>
<td>Finishing</td>
<td>8,000-10,000 rpm</td>
</tr>
</tbody>
</table>

Data obtained using a ¼” ball end mill

**Calculating weight**

\[
\text{Weight (lb.)} = \frac{\text{L x W x Thickness (inches)}}{28.8}
\]
Which one is right for me?

Each batch is manufactured to the highest standards in world-class facilities with high-quality ingredients while still keeping your budget in mind. With competitive prices and excellent results, you’ll find no better match for your project.

<table>
<thead>
<tr>
<th></th>
<th>Blue</th>
<th>Purple</th>
<th>Turquoise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardness (Shore D)</td>
<td>50-55</td>
<td>52</td>
<td>56</td>
</tr>
<tr>
<td>Surface Finish</td>
<td>Excellent</td>
<td>Good</td>
<td>Excellent</td>
</tr>
<tr>
<td>Fine Detail</td>
<td>Good</td>
<td>Fair</td>
<td>Excellent</td>
</tr>
<tr>
<td>Proofing</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>Flexibility</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Good</td>
</tr>
<tr>
<td>Thin-Walled Sections</td>
<td>Good</td>
<td>Good</td>
<td>Excellent</td>
</tr>
</tbody>
</table>

Original Classic Blue

This tried-and-true wax has been the industry-standard for over 30 years. It performs exceptionally well on the CNC or when carving by hand.

Economical Purple

Ideal for educational training programs or testing, this wax undergoes the same quality standards as the other formulations while being budget-friendly.

Enhanced Turquoise

This premium wax is ideal for applications where a high level of detail and accuracy is needed whether working by hand or machine.

ACCESSORIES

3M™ Hi-Strength 90 Spray Adhesive

High Strength 90 Adhesive bonds to concrete, wood, MDF, laminates, polyethylene and more. Its extreme high-strength and fast-tack adhesive provides strong permanent bond. Ideal adhesive for machinable wax. It offers a one-minute dry time for fast, extremely strong permanent results and high productivity.

To order any of these products, please see our website, www.FreemanSupply.com, for complete details and part numbers. You can also contact our Customer Service department at (800) 821-3511 opt. 3.

MASTER PROTOWAX

This unique machinable investment casting wax is perfect for prototype work or even short-run part requirements. Please see our website, www.FreemanSupply.com or contact Customer Service for complete details.

Specifications

<table>
<thead>
<tr>
<th>Color</th>
<th>Specific Gravity</th>
<th>Ash Content</th>
<th>Hardness (Shore D)</th>
<th>Softening Point</th>
<th>Volumetric Shrinkage @ Room Temp.</th>
<th>Viscosity @ 160°F (CPS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>0.94</td>
<td>0.010%</td>
<td>43</td>
<td>157°F</td>
<td>7%</td>
<td>30</td>
</tr>
</tbody>
</table>
LOCATIONS

Branch Locations and Public Warehouses
Freeman has strategically placed satellite locations across North America with customer service representatives ready to help. Thousands of products are stocked at these locations as well as public warehouses to reduce your shipping costs.

Strategic & Effective Stocking
Freeman’s inventory staff constantly monitors sales and stocking data across the country to properly provide the right amount of products at each location.

Worldwide Shipping
Freeman ships orders all across the globe and has various international distributors available to supply customers with top-quality products.

TERMS & CONDITIONS

Returned Goods
To save transportation charges, and facilitate handling of merchandise upon our receipt, we request that no merchandise be returned without prior written authorization.

Damaged Goods
Merchandise given to a transportation firm is their responsibility to deliver in satisfactory condition. If merchandise is delivered damaged, the customer should note as such on freight bill and file a claim with the delivering carrier. Regulations require that hidden damage, identified upon unpacking, must be reported within ten (10) days of delivery in order to file a proper claim.

Liability/Warranty Statement
Our products are intended for sale to industrial and commercial customers. We request that customers inspect and test our products before use and satisfy themselves as to contents and suitability. Nothing herein shall constitute a warranty, expressed or implied, including any warranty of merchantability or fitness, nor is protection from any law of patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is replacement of our materials and in no event shall we be liable for special, incidental, or consequential damages.

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