



# Freeman

## Sheet Wax



### Freeman Sheet Wax

Sheet Wax is used primarily to simulate metal or part thickness when making metal forming dies or punches, resin transfer molds (RTM), or any two-part molds where a uniform part thickness is desired.

Formulated and manufactured by Freeman to a uniform thickness of  $\pm .001$  inch, our wax sheets can be ordered with or without an adhesive back. They are also available in a regular temperature formulation, which features greater durability, depression resistance, and translucency (in thinner sheets) and a high temperature formulation, which features maximum flexibility and natural draping characteristics.



# Freeman Sheet Wax

## To order Freeman Sheet Wax:

- Specify Type:** No. 266 Hi-Temp  
No. 165 Regular
- Specify Backing:** Plain = PL (No Adhesive)  
Pressure Sensitive = PS (Adhesive Applied)
- Specify Thickness:** Inches  
Millimeters

## 165 Regular Sheet Wax

This light yellow color wax is formulated to provide durability, pliability and ease of application while being moisture resistant.

### This wax features:

- Uniform thickness accuracy of  $\pm .001$ .
- Firm surface for durability and depression resistance.
- Translucency of sheets up to 1/8" thick making it excellent for visualizing layout lines and transcribing engineering information.
- Melting point of 177°F.

| 165 Regular Sheet Wax (12" x 24") |              |             |              |
|-----------------------------------|--------------|-------------|--------------|
| Inches                            |              | Millimeters |              |
| 165 Plain                         | 165 Adhesive | 165 Plain   | 165 Adhesive |
| 0.007                             | 0.007        | 0.20 mm     | 0.20 mm      |
| 0.010                             | 0.010        |             | 0.25 mm      |
| 0.015                             | 0.015        |             | 0.30 mm      |
| 0.020                             | 0.020        |             | 0.50 mm      |
| 0.025                             | 0.025        |             | 0.60 mm      |
|                                   | 0.030        |             | 0.75 mm      |
| 0.031                             | 0.031        |             | 0.80 mm      |
| 0.040                             | 0.040        | 1.00 mm     | 1.00 mm      |
| 0.050                             | 0.050        |             | 1.25 mm      |
| 0.060                             | 0.060        |             | 1.50 mm      |
| 0.063                             | 0.063        | 2.00 mm     | 2.00 mm      |
| 0.070                             | 0.070        |             | 2.50 mm      |
| 0.072                             | 0.072        | 3.00 mm     | 3.00 mm      |
| 0.080                             | 0.080        |             | 5.00 mm      |
| 0.090                             | 0.090        |             | 6.00 mm      |
| 0.094                             | 0.094        |             |              |
| 0.100                             | 0.100        |             |              |
| 0.125                             | 0.125        |             |              |
| 0.156                             | 0.156        |             |              |
| 0.160                             | 0.160        |             |              |
| 0.188                             | 0.188        |             |              |
| 0.250                             | 0.250        |             |              |
| 0.375                             | 0.375        |             |              |
|                                   | 0.500        |             |              |

## 266 Hi-Temp Thermo-Stable Sheet Wax

This medium brown wax was developed primarily for use with tooling plastics to prevent wax deformation under exothermic heat conditions.

### This wax features:

- Uniform thickness accuracy of  $\pm .001$ .
- Maximum flexibility for forming quickly and accurately to any contoured surface (more flexible than 165 Regular Sheet Wax).
- Natural draping characteristics at room temperature and absence of memory (spring-back) eliminate the need to warm or temper wax.
- Melting point of 282°F.

| 266 Hi-Temp Thermo-Stable Sheet Wax (12" x 24") |              |             |              |
|-------------------------------------------------|--------------|-------------|--------------|
| Inches                                          |              | Millimeters |              |
| 266 Plain                                       | 266 Adhesive | 266 Plain   | 266 Adhesive |
|                                                 | 0.007        |             | 0.20 mm      |
|                                                 | 0.010        |             | 0.25 mm      |
| 0.015                                           | 0.015        |             | 0.30 mm      |
|                                                 | 0.018        |             | 0.40 mm      |
| 0.020                                           | 0.020        |             | 0.50 mm      |
|                                                 | 0.025        |             | 0.60 mm      |
|                                                 | 0.028        |             | 0.70 mm      |
|                                                 | 0.030        |             | 0.75 mm      |
|                                                 | 0.031        |             | 0.80 mm      |
|                                                 | 0.035        |             | 0.85 mm      |
|                                                 | 0.040        |             | 0.90 mm      |
|                                                 | 0.045        |             | 1.00 mm      |
|                                                 | 0.047        |             | 1.20 mm      |
|                                                 | 0.050        |             | 1.25 mm      |
|                                                 | 0.055        |             | 1.30 mm      |
|                                                 | 0.060        |             | 1.40 mm      |
|                                                 | 0.063        |             | 1.50 mm      |
|                                                 | 0.065        |             | 1.60 mm      |
|                                                 | 0.070        |             | 1.70 mm      |
|                                                 | 0.075        |             | 1.75 mm      |
|                                                 | 0.080        |             | 1.80 mm      |
|                                                 | 0.085        |             | 1.90 mm      |
|                                                 | 0.090        | 2.00 mm     | 2.00 mm      |
|                                                 | 0.094        |             | 2.20 mm      |
| 0.100                                           | 0.100        |             | 2.25 mm      |
|                                                 | 0.110        |             | 2.30 mm      |
|                                                 | 0.116        | 2.40 mm     | 2.40 mm      |
|                                                 | 0.118        |             | 2.50 mm      |
|                                                 | 0.120        |             | 2.60 mm      |
| 0.125                                           | 0.125        | 2.70 mm     | 2.70 mm      |
|                                                 | 0.140        |             | 2.75 mm      |
|                                                 | 0.156        |             | 2.80 mm      |
|                                                 | 0.158        | 3.00 mm     | 3.00 mm**    |
|                                                 | 0.170        |             | 3.20 mm      |
| 0.188                                           | 0.188        |             | 3.50 mm      |
| 0.200                                           | 0.200        |             | 4.00 mm      |
|                                                 | 0.219        |             | 4.50 mm      |
| 0.250                                           | 0.250        |             | 5.00 mm      |
| 0.375                                           | 0.375        |             | 6.00 mm      |
|                                                 | 0.500        |             | 7.00 mm      |
|                                                 |              |             | 8.00 mm      |

### Sheet Wax RTM Squares

When sheet wax is used in very large applications, such as resin transfer molding (RTM) in the boat building industry, it is often advantageous to apply two layers of sheet wax to achieve the desired thickness. The first layer is composed of smaller 6"x6" sheets, applied leaving a thin gap (.015-.020") between the edges of each sheet. Then a second layer of our full size sheet wax is applied. It is now possible to pull a vacuum through the gaps of the first layer. This negative pressure firmly secures the second layer against the first and aids the adhesive in maintaining a uniform thickness throughout. This is especially important in dusty environments where the adhesive alone may not hold throughout the tooling process.

| Catalog Number | Description | Thickness | Width  | Length |
|----------------|-------------|-----------|--------|--------|
| 206031S        | Sheet Wax   | .031"     | 6"     | 6"     |
| 206063S        | Sheet Wax   | .063"     | 6"     | 6"     |
| 206065S        | Sheet Wax   | .065"     | 6"     | 6"     |
| 206094S        | Sheet Wax   | .094"     | 6"     | 6"     |
| 206100S        | Sheet Wax   | .1"       | 6"     | 6"     |
| 206125S        | Sheet Wax   | .125"     | 6"     | 6"     |
| 206188S        | Sheet Wax   | .188"     | 6"     | 6"     |
| 206250S        | Sheet Wax   | .250"     | 6"     | 6"     |
| 226300S        | Sheet Wax   | 3 mm      | 152 mm | 152 mm |

### Sheet Wax Spray Adhesive

The easiest way to coat Plain Sheet Wax for fabrication. It can also be used on paper, plastics, leather, metal or glass.

| Catalog Number | Description              | Availability |
|----------------|--------------------------|--------------|
| 054510         | Sheet Wax Spray Adhesive | 15.6 fl. oz. |



### Application of Sheet Wax



1 Remove the backing from the self-adhesive wax sheets or apply Sheet Wax Spray Adhesive per directions on plain sheet wax.



2 Position wax sheets onto model or tool. Use butt joints or the overlay and cut jointing technique.



3 Roll to extrude air bubbles for a flat, even surface.



4 Accurately fitting subsequent pieces.



5 Consolidation of corners using filleting tools.



6 Repair of imperfections in joints by using Wax or Plast-Econ Modeling Clay.

## Freeman Has Eleven Strategic North American Locations and Worldwide Distribution



### Ohio (Headquarters)

1101 Moore Rd. • Avon, OH 44011  
TEL 800-321-8511 • TEL 440-934-1902 • FAX 440-934-7200

### California

I M C Distribution  
15147 Don Julian Road  
City of Industry, CA 91746  
TEL 800-325-2100  
FAX 440-934-7200

### Pennsylvania

909 Strickler Road  
Mt. Joy, PA 17552  
TEL 800-631-4230  
TEL 717-653-5300  
FAX 717-653-7372

### Georgia

Shippers Warehouse of Georgia  
9250 S. Main St.  
Jonesboro, GA 30236  
TEL 800-445-0811  
FAX 440-934-7200

### Ontario

Voyageur Distribution  
3600B Laird Road, Unit 4  
Mississauga, ON L5L 5Y7  
TEL 800-345-9259  
FAX 586-774-1019

### Kansas

Garvey Warehouse  
5755 S. Hoover Rd., Bldg. #5  
Wichita, KS 67215  
TEL 800-792-1047  
FAX 817-568-0908

### Quebec

3475 boul Pitfield  
Montreal, QC H4S 1H3  
TEL 800-263-7699  
TEL 514-335-3530  
FAX 514-335-3225

### Michigan

27655 Groesbeck Hwy.  
Roseville, MI 48066  
TEL 800-345-9259  
TEL 586-774-1210  
FAX 586-774-1019

### Texas

3152 S.E. Loop 820  
Fort Worth, TX 76140  
TEL 800-792-1047  
TEL 817-551-7301  
FAX 817-568-0908

### Minnesota

Professional Warehouse  
2117 Charles Ave.  
Saint Paul, MN 55114  
TEL 800-558-0866  
FAX 262-789-5407

### Wisconsin

16910 W. Cleveland Ave.  
New Berlin, WI 53151  
TEL 800-558-0866  
TEL 262-789-9800  
FAX 262-789-5407

## Terms and Conditions

### Ordering

For fast and accurate ordering, always refer to the catalog number for each product.

### Quotations & Prices

Quotations will be given upon request. Prices are subject to change without prior notice and do not include sales or excise taxes which may be applicable in your area.

### Shipping Information

When specific shipping information is NOT given by the customer, we will make every attempt to ship best way.

### 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 or 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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