

## Product Guide Contents:

## FAQ

MODELING CLAY
AutoStyle Industrial Clay
Other Industrial Clay
Page

Fine Art Sculpting Clay
Castilene Sculpting Wax
Fill-It Mold Makers Putty
CLAY MODELING FILM
Clay Modeling Film7

Modeling Check Foil 8
Chrome Film8
DiNoc ..... 8

## MODELING ACCESSORIES

Radius Curves 9
Profile Gauges
Rice Tapes
MODELING TOOLS
Industrial Tools (Wood Handle) 10
Steels (Blue Tempered Steel)10
Glyptic Tools ..... 11
Kens Tools ..... 12

EDUCATIONAL MATERIALS
Industrial Design Modeling DVD's
Industrial Design Modeling Books13
Sculpting DVD's ..... 13
DISTRIBUTORS ..... 14

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## Frequently Asked Questions

TIP: Always test paints and mold making material prior to use on an actual Project.

* How much does clay weigh? Although different clays have different densities a good estimate is 90 pounds per cubic foot for standard clays and $30 \%-40 \%$ less for lightweight clays. See chart below.
* Can I mix different clays together? Concerns with mixing clays are color, reactions to rubber, hard/soft areas and cohesion. They will generally stick to each other but proceed with caution.
© How do I smooth the surface? Try water, alcohol, WD-40 ${ }^{\circ}$, Goof-Off ${ }^{\oplus}$, turpentine, lighter fluid, Avon Skin-So-Soft ${ }^{\bullet}$, De-Solv-it and other multipurpose citrus-based solvents. Industrial clay will smooth simply by scraping with tools.
- Why is sulfur used in some of the clays? Sulfur is a non-toxic filler that enhances the surface texture of the clay.
- Why is sulfur removed from many of the clays? Sulfur-free formulas are generally easier to make silicone rubber molds from and have less odor.

NOTE: Color of images may not represent actual product colors.

## Guide to Chavant Clay Firmness $\left(68^{\circ} \mathrm{F}\right)$

$1=$ softest; $10=$ hardest
Bold print = Industrial Design Clay

1. DaVinci Soft
2. J-525
3. DaVinci Firm
4. NSP-Med., CM-70, AutoStyle Med.
5. Le Beau Touché, NSP Soft, Fill-It
6. I-307
7. Le Beau Touché-HM, CM-50, Fill-It-HM
8. NSP-Hard
9. Y2 Klay (386M)

## Guide to Chavant Clay Firmness

Water has a density of 62.5 pounds/cubic foot and a specific gravity of $1 \mathrm{gram} / \mathrm{cm} 3$

| Clay Name | Density (pounds/cubic foot) | Specific Gravity (g/cm3) |
| :---: | :---: | :---: |
| CM-50 | 92 | 1.47 |
| J-525, CM-70 | 94 | 1.51 |
| I-307 | 92 | 1.47 |
| Y2 Klay and AutoStyle | 62 | 1.00 |
| Le Beau Touché \& HM | 92 | 1.48 |
| DaVinici Firm \& Soft | 97 | 1.55 |
| NSP-Soft | 95 | 1.52 |
| NSP-Medium | 100 | 1.59 |
| NSP-Hard | 110 | 1.76 |
| Professional Plasteline | 92 | 1.47 |

## Introducing: <br> AUTOSTYLE INDUSTRIAL DESIGN CLAY

## - SULFUR FREE

Reduces potential corrosion of susceptible metals in computer work stations, CNC equipment, ovens and jewelry while retaining the "feel" of sulfur based clays.
© LIGHTWEIGHT
$35 \%$ lighter than traditional industrial styling clay. (Specific Gravity $=1.05$ ) Reduces shipping costs and eases the process of moving finished models.
© EXCELLENT MILLING QUALITIES
Clay fragments do not stick to milling bits or the model surface. Chips can be brushed or blown away with compressed air. The cut surfaces hold excellent detail.

ค RESISTANT TO SHRINKING AND CRACKING
Stabilizes collection of surface data and milling process. Saves time for model repairs and surface modification.
© WORKABLE AT $130^{\circ} \mathrm{F}\left(55^{\circ} \mathrm{C}\right)$ Recommended working temperature $125^{\circ} \mathrm{F}-135^{\circ} \mathrm{F}$ Faster heat-up time to a comfortable, creamy working consistency. Working time approximately 20 minutes.
© EXCEPTIONAL COHESION AND ADHESION
No need to use a hot air gun to warm an existing clay surface for lamination build-up. Seams feather out smooth and do not peel back when tooling the laminate contact surfaces. Adheres to wood, foam or existing painted surfaces.

- LOW ODOR

All studios will appreciate this characteristic.

Available in: Soft, Medium and Hard - Colors: Dark Brown and Light Brown

## PACKAGING:

Billet (Cylinder) Size
2 Pound

Approximate Dimensions
$21 / 2 " \times 11 "$
(20 per case)

## Net Case

40 Pounds Industrial Design Clay

Modeling clay continues to be an industry standard for three dimensional design studies. The material perfectly complements modern computer aided modeling processes. Chavant Hard Styling Clays are manufactured in several formulations to suit the exacting requirements of sculptors in the Transportation, Product Design and Special Effect industries. Formula selection depends largely upon personal preference of the modeler, available equipment, working environment and job requirements. Each formula has excellent qualities of adhesion, cohesion and consistency. All formulas can be CNC milled, scanned, carved, extruded, and slicked to an extremely accurate, glass-like finish. The clays join easily, will not show seams, hold fine detail and will not crack under normal circumstances. The clays can be reused, modeled by hand, templates or CNC equipment for quick surface modifications, are non-toxic and create no dust. Surfaces can be prepared with films, tapes or paint and surface data can be recorded or tooling molds can be acquired.

## Hard Styling Clays (DeAired)

Industrial Styling Clays are most often manufactured by removing entrapped air, making the clay denser, smoother and ideal for achieving excellent surfaces and fine extrusions. (See page 2 for Relative Hardness Chart and Density Chart)

* DeAired CM-50: "Medium-hard", sulfur based, brown formula, considered the softest of the Hard Styling Clays.
* DeAired J-525: "Hard", sulfur based, light brown with a higher softening point.
- DeAired CM-70: "Extra-hard", sulfur based, brown formula.
o DeAired I-307: "Hard", reduced sulfur, brown formula with lower working temperature requirement ( $125^{\circ} \mathrm{F}$ )
of Y2 Klay: v386M is a "hard" sulfur free, lightweight, dark brown, higher wax content product.
(See AutoStyle Clay on opposite page for Y2 Klay packaging info)


## PACKAGING:

Billet (Cylinder Size)<br>$21 / 2$ pound Billet<br>6 Pound Billet (J-525 \& I-307 only)

## Approximate Billet Dimension

$21 / 2^{\prime \prime} \times 12^{\prime \prime}$ ( 20 per box) $3 "$ x $16^{\prime \prime}$ (8 per box)

Net Case Weight
50 Pounds
48 pounds

## Hard Styling Clays (Non DeAired)

* CM-50: "Medium-hard", sulfur based, brown, considered the softest of the Hard Styling Clays.
- J-525: "Hard", sulfur based, light brown formula with a higher softening point.
of CM-70: "Extra-hard", sulfur based, brown formula.


## PACKAGING:

Block Size<br>2 pound Block

Approximate Block Dimension
$23 / 4 " \times 23 / 4 " \times 5$ " ( 20 per box)
(individually wrapped)

Net Case Weight
40 Pounds

## Te̛ols INT'L

Chavant is pleased to offer Japan made Industrial Clays manufactured by our long time affiliate, Tools International. Please contact us for more information.


Each type of Chavant Fine Art Sculpting Clay, also known as Plasteline, is suitable for all educational levels and professional sculptors in the Fine Art, Special Effect and Product Design industries. Also consider the Industrial Design clays found on the previous pages. Personal opinion generally dictates choice and clients appreciate the variety of materials. All will meet requirements for detail retention and surface development. Blocks are each individually wrapped.

## NSP (Sulfur Free)

NSP is a sulfur-free, somewhat tougher, waxier, sculpting Plasteline, used widely in Fine Arts and Special Effects. Can be melted and poured at approximately $185^{\circ} \mathrm{F}$.
Available in: Soft, Medium and Hard; Green, Brown or Tan. (Tan color will vary)

|  | PACKAGING: |  |  |
| :---: | :---: | :---: | :---: |
| Block Size | Approximate Dimensions | Net Case Weight |  |
| 2 Pound Block | $23 / 4$ x $23 / 4$ " 5 " ( 20 / box) | 40 Pounds |  |
| 10 Pound Block* | $41 / 2 \times \times 41 / 2 " \times 11^{\prime \prime}(5 / b o x)$ | 50 Pounds |  |

## Le Beau Touché - Original \& Le Beau Touché - HM (Sulfur Free)

Le Beau Touché is a sulfur-free, extremely smooth, flexible and tacky sculpting Fine Art Plasteline with exceptional adhesive quality. The HM formula is less sensitive to heat variations and is suggested for use where working environment is expected to reach $90^{\circ} \mathrm{F}$. HM is slightly firmer and less tacky than Le Beau Touché - Original. Available in: Green, Brown or Cream. (Cream color will vary)

## PACKAGING:

Block Size
2 Pound Block 10 Pound Block

Approximate Dimensions
$23 / 4 " x 23 / 4 " \times 5$ " ( $20 /$ box) $41 / 2^{\prime \prime} \times 41 / 2 " \times 11^{\prime \prime}(5 /$ box)

## Net Case Weight

40 Pounds
50 Pounds


## Professional Plasteline (Sulfur Based)

A superior, sulfur based, silky smooth modeling compound. The material is soft, permanently pliable, reusable and requires no heating. Chavant's original formula and blending process assures Plasteline of consistent high quality.
Available in: Gray-Green or Brown.

|  | PACKAGING: |  |
| :---: | :---: | :---: |
| Block Size | Approximate Dimensions | Net Case Weight |
| Pound Block | $1 " \times 33 / 4 \times 41 / 2 "(50 /$ box $)$ | 50 Pounds |
| 2 Pound Block | $23 / 4 " \times 23 / " \times 5 "(20 /$ box $)$ | 40 Pounds |
| 5 Pound Block | $41 / 2 " \times 41 / 2 " \times 51 / 2 "(10 /$ box $)$ | 50 Pounds |
| 10 Pound Block | $41 / 2 " \times 41 / 2 " \times 11 "(5 /$ box $)$ | 50 Pounds |

## DaVinci Italian Plastilina (Sulfur Based)

Formulated in the 1920's, DaVinci is an original Italian Plastilina. Normal temperature ranges do no affect this unique, wax-free, sulfur based sculpting clay which has a non-sticky, smooth feel of water based clay. Available in: Soft (the softest product offered) and Firm (second softest we offer), Dark Gray only.

## PACKAGING:

Block Size Approximate Dimensions
2 Pound Block
$23 / 4 " \times 23 / 4 " \times 5 "(20 / b o x)$
Net Case Weight
40 Pounds

NOTE: Replacing sulfur minimizes difficulties associated with mold making when using silicone rubber. Always pre-test rubber systems and consider Sealers and Release Agents.

Models like clay
Works like wax
3 Hardnesses
Self supporting without armature
Lightweight; $40 \%$ lighter than Plasteline

Hard grade for armatures and sharp detail Medium grade for detailing and modeling Soft grade works like clay Non polymerizing

Sulfur Free Is compatible with silicones and other rubbers


To Begin with Castilene
Soften with a variety of heat sources including heat lamps, hot boxes, heat guns, crock pots, microwave ovens, hot water or double boilers. DO NOT USE A DIRECT FLAME. Regardless of the heat source, avoid heating above $170^{\circ} \mathrm{F}$ or air bubbles may result. Castilene can be melted and poured at about $170^{\circ} \mathrm{F}$. The strength and light weight of Castilene allows sculpting without a wire armature in many cases.

## Working with Castilene

Hard Castilene will remain malleable while working if kept warm. All three hardness are compatible with one another. Hard Castilene can be used as an armature and soft or medium Castilene can be applied on top of the hard. All generic wax tools and wax carving methods are compatible with Castilene. Heat tools before carving. Chill Castilene to achieve optimum hardness for high detail and burnishing.

## Polishing and Finishing Methods

Use wax compatible products including Goo Gone, De-Solv-it, d-limonene or Prepsol based products. Mineral oil, Turpinoid and petroleum products will lubricate the surface. Polish with Chiffon, nylon or burnishing tools. Castilene does not inhibit silicone or other mold rubbers. Castilene can be burned out for lost wax casting.

Available through select Chavant Distributors Packaging: 2.5 pound box

## Fill-it (mold makers putty)

Fill-It is a sulfur free, off-white, wax based clay, with excellent adhesive and feathering characteristics. It is a general use clay used by mold makers to seal mold boxes, build dams, set parting lines/shims and repair cracks.

Fill-It is packaged in individually wrapped one pound blocks, 50 pounds per case. Each one pound block is pre-cut into $1 / 4$ pound sticks for ease of handling. Fill-lt is flexible, non-drying and non-reactive with silicone.

## Clay Modeling Film



Silver
$930 \mathrm{~mm} \times 30 \mathrm{~m}$

## Steel Gray <br> $930 \mathrm{~mm} \times 20 \mathrm{~m}$

Clay Modeling Film is used for highlight confirmation on the surface of clay models. The material is a pre-pigmented, ready to use, adhesive backed, stretchable membrane intended to simulate a painted surface on qualification studies or presentation models. It has excellent elasticity for application onto compound curves, concave or corner surfaces. Color will not fade in areas that are stretched. Film will have "directionality" and is best applied all in the same direction.

Prior to application, the film is cut oversized to fit on the clay surface. A clear protective coating is peeled away and the film is then soaked in warm water to remove the paper backing and activate the water based adhesive. It is now ready for application. The film is stretched over the desired surface and trimmed. Entrapped air is removed with a squeegee, felt pad or resin spatula. After review, the film can be removed in one piece without damage to the clay model.

When painting Clear Film, use an organic solvent, lacquer based paint, which will cause the film to become elastic. While film is elastic (softened), soak in warm water to remove paper backing and apply film to clay surface.

Store in a cool, low humidity environment. After cutting, film should be returned onto roll and taped in place, taking care to hold down protective coating to prevent discoloration.

*Silver \& Black Metallics available in less-than-roll-quantity

## Modeling Check Foil

An inexpensive quick method to verify surface data using ultra thin aluminum foil.


Matte Black
$450 \mathrm{~mm} \times 250 \mathrm{~m}$


Chrome Silver $450 \mathrm{~mm} \times 250 \mathrm{~m}$


Red
$200 \mathrm{~mm} \times 250 \mathrm{~m}$


Steel Gray
$450 \mathrm{~mm} \times 250 \mathrm{~m}$

## Modeling Sheet Chrome

For chrome simulation on door handles, trim and headlamp housings. Ultra thin. Stretching will not "break" color or gloss. Peel and Stick. ( $540 \mathrm{~mm} \times 5 \mathrm{~m}$ )


## 3M DiNoc



Traditional gray model makers surfacing film intended to be painted prior to application to the clay model surface. After painting, the material is cut to size and soaked in water to remove the protective paper backing and expose the water activated adhesive. The film is stretched over the model surface and can be removed. ( $36^{\prime \prime} \times 100^{\prime}$ )

## Radius Curves



Radius Curves are made of 2 mm transparent acrylic. Sets are available in 30,50 or 100 pieces. All sets come in a wooden storage box. Radii are printed in centimeters (cm) on each curve. Curves have parallel edges.

Radii assortment (in CM) included with each Radius Curve set

| $\mathbf{1 0 0}$ Piece Set | $\mathbf{~ 5 0 ~ P i e c e ~ S e t ~}$ | $\mathbf{c \|} 30$ Piece Set |
| :--- | :--- | :--- |
| $3,4,5 \ldots 30,32,34 \ldots 100$, | $3,4,5 \ldots 10,15,20 \ldots 100$, | $10,11,12 \ldots 20,22,24 \ldots 30$, |
| $105,110,115 \ldots 170,180$, | $105,110,115 \ldots 150,160$, | $35,40,45 \ldots 100$ |
| $190 \ldots 300,320,340 \ldots 500$ | $170,180 \ldots 290$ |  |

## Profilemeister Profile Gauges



A unique steel pin profile contour gauge that allows 20 cm sections to be joined together. Once a shape has been embedded into Profilemeister, the gauge can be stored in its original case without disturbing the embedded shape. The gauge is sold in sets of 2 or 5 sections. Each set includes a case, reference ruler and hinged bracket that can be inserted into the ruler slot allowing two gauges to be used at a fixed angle.

## Rice Tapes

Japanese Rice Paper "washi" tapes. Thin and perfect for guiding tools or templates, masking areas and creating peripheral line qualification studies. Minimal adhesive residue after removal. Will not pull off surface finish.

Blue and Black sizes

| Size | Rolls / <br> Case | Rolls / <br> Sleeve |
| :---: | :---: | :---: |
| $3 \mathrm{mmx18m}$ | 400 | 10 |
| $6 \mathrm{mmx18m}$ | 200 | 10 |
| $9 \mathrm{mmx18m}$ | 130 | 10 |
| $12 \mathrm{mmx18m}$ | 100 | 10 |
| $15 \mathrm{mmx18m}$ | 80 | 10 |
| $18 \mathrm{mmx18m}$ | 70 | 10 |
| $24 \mathrm{mmx18m}$ | 50 | 10 |

Silver Sizes (Matches Silver Modeling Film)


| Size | Rolls / case |
| :--- | :---: |
| $6 \mathrm{~mm} \times 15 \mathrm{~m}$ | 160 |
| $10 \mathrm{~mm} \times 15 \mathrm{~m}$ | 96 |
| $12 \mathrm{~mm} \times 15 \mathrm{~m}$ | 80 |
| $15 \mathrm{~mm} \times 15 \mathrm{~m}$ | 64 |
| $18 \mathrm{~mm} \times 15 \mathrm{~m}$ | 56 |
| $20 \mathrm{~mm} \times 15 \mathrm{~m}$ | 48 |
| $25 \mathrm{~mm} \times 15 \mathrm{~m}$ | 40 |
| $30 \mathrm{~mm} \times 15 \mathrm{~m}$ | 32 |
| $40 \mathrm{~mm} \times 15 \mathrm{~m}$ | 24 |
| $50 \mathrm{~mm} \times 15 \mathrm{~m}$ | 16 |
| $100 \mathrm{~mm} \times 15 \mathrm{~m}$ | 8 |

## Industrial Clay Tools Handmade with Carbon Steel

TOOL "SETS" AVAILABLE
See Price Sheet
Published Separately


Starter Kit Includes (8 Pieces)
3" Straight, 3" Curve, P38-1 1/4", P40-1/2", P51-1 1/2, B52-1", F18-13/4", SE .010" x 7


Chavant Industrial Clay Tool Wires Construction

- Round hardened wire is shaped and hand ground to half moon with flat side on outside edge
- Wire is brazed together and inserted 2" into pre-drilled wooden handle
- Wire is epoxied in place with brass ferrule

FINISHERS


RAKES


## STEELS



Make Your Own Steels!
Blue tempered spring steel assortment consisting of six 6 " $\times 12^{\prime \prime}$ sheets of various thickness
( $0.005,0.015,0.02,0.025$, and 0.032 ) inches. Set includes templates for making your own steels. modeling tools

The Glyptic Modeling Tool loops are made from high quality materials: Monumental Loops: Serrated on side Large Loops: Half round stainless steel wire Small and Medium Loops: Tempered steel

Glyptic (Greek - "to carve") tools have been designed for Chavant, Inc. for use in professional and hobby modeling of clay, wax and plastics etc. for sculpture, pottery, jewelry and ceramics. The balanced, lightweight handles are made of brightly colored anodized aluminum. A variety of wire loops fit tightly into the handles. The wire loops interchange easily by simply loosening the set-screw with the supplied allen wrench.
(ML) medium loops fit in handles HE \& HC


These tools are very economical: If a loop breaks, just replace the loop,

(LL) large loops fit in handles HA \& HC

(ML) monumental loops: stainless steel
(HMLT) monumental tool handle: sold separately

The brightly colored anodized handles help you to quickly identify which tool you want while at work. Each handle is approx. $6^{\prime \prime}$ in length and comes with an allen wrench for easy loop change.



Smooth Wire and Braided Wire Rake Sets: Doubled ended tool sets. (The Itty Bitty 1 Set) has Smooth Wire. Fine (ST-1), Medium (ST-2) and Heavy (ST-3) have Braided Wire. Delicate, not for digging.


Extra Heavy Braided Wire Rakes: ST-7 has thicker wire than ST-4. Used for refining rough areas.


Metal Tooth Rakes: ST-6 has thicker wire than ST-5. Used to block out and take down rough areas.


WT-1 is double ended with 2 prongs on one end and 3 prongs on the other. WT-2 has 6 prongs. WT- 3 has 3 prongs ( 0.025 wire) and WT-4 has 3 prongs ( 0.047 wire).

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## Educational Materials

## Industrial Clay Modeling DVD's*

* Footage is somewhat outdated, however content is valuable to any new clay modeler.


## Part 1: Introduction to Clay Modeling (90 minutes)

This highly recommended DVD offers information on types of clay, clay tool usage, clay ovens, armature construction, clay application, fillets, radii, compound curves and surface finishing. A full-size, tear drop shaped concept vehicle is developed.

Part 2: Advanced Techniques in Clay Modeling (90 minutes)
This session covers topics including surface plates, armatures, measuring equipment, hidden templates, ground effect development and an introduction to mold making. Full-size pick-up truck aftermarket components are used for demonstration.
Part 3: Mold Making and FRP Preparation for Clay Models (70 minutes) You have a clay model, now what? Several techniques for mold making from a clay model are discussed including Rayite MDM (discontinued), surface preparation for a Gel Coat Class A finish and Polyester, Epoxy and Syntactic foam tooling.


## Industrial Clay Modeling Books



## Automobile Design Techniques and Design Modeling:

A significant textbook presentation of design modeling in the past, present and future. Includes surface development, studio establishment, mold making and suppliers list - featuring the use of Hard Styling Clay throughout. 350 pages, 450 photos. Hardcover. Author: Mr. Frederick E. Hoadley.

Clay Modeling:
Techniques for Giving Three-Dimensional Form to Idea: This publication will identify all aspects of clay procedures in automobile development, reduced scale to full size. Published in conjunction with Nissan, Japan. 150 pages, filled with gray scale and color photos. Paperback. Author: Mr. Yasusato Yamada.


BOOK CONTENTS ARE AVAILABLE AT: www.chavant.com > tech info > educational section
RECOMMENDED: Educational Package - Three industrial videos and both industrial modeling books.

## Sculpting DVD's

Sculpting Movie Monsters: Instructional DVD by Mark Alfrey who sculpts two monsters. 52 minutes
Sculpting the Nude Figure: Basic sculpting practices such as armature construction and measurement are reviewed. Techniques for sculpting nudes are demonstrated from a live female model. 45 minutes

Standard Molds and Castings: Learn silicone and stone mold making and how to pour rubber mask and plastic resin castings from those molds. 60 minutes

Prosthetic Make-Up: Learn how to create movie quality prosthetic make-up effects from today's Hollywood pros.

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Hid


## Stocking Distributors of Chavant Products




Caesar Yanez


Eric Slocombe


Greg Pocutanovich


Tim Bruckner


Clay Modeling Products
Since 1892 the first name in Modeling Clay
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5043, Industrial Road Farmingdale, NJ 07727

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Phone 2: (732) 751-0003
Fax: (732) 751-1982
www.chavant.com
E-Mail: info@chavant.com

Chavant is dedicated to manufacturing the finest modeling products in the world. It is our goal to educate and technically support clients. Thank you for the opportunity to offer these services.

ACMI sponsors a certification program for art materials, certifying that these products are non-toxic and meet voluntary standards of quality and performance. www.acminet.org


[^0]:    ** Handles on all tools $=\mathbf{5}^{\prime \prime}+/-.25^{\prime \prime}$ **

