

Chavant

Clay Modeling Products
Since 1892, the finest name in modeling clay

Clay Bodies: General, Technical and Descriptive Information

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Clay Specifications - Introduction

Chavant modeling clays are used throughout a variety of industries in many different and unique ways. Completed projects range from Heroic size bronzes to automotive designs and from jewelry design to children's toys. Various applications may require specific characteristics that are often difficult to define. Chavant clays are oil/wax based and do not permanently harden. The clays are not meant to be fired and when working with these clay bodies a user is not working on the final project. The finished clay will have some sort of mold taken from the clay's surface and some other permanent material is cast out of the mold.

Client's needs will occasionally vary from project to project but most importantly a clay body will usually be chosen based on the personal preference of the worker. Questions or alternative characteristics that an artist will consider when selecting a clay body may include:

- Simply, what feels right;
- what works in a certain climate;
- what is best for making molds from;
- what sticks best to an armature material;
- what clay doesn't smell;
- what holds technical detail;
- what works best for a loose style;
- or is the clay hard or soft enough?

It is extremely difficult for a clay representative to choose a clay body for an artist or stylist. But it is very helpful and easy to narrow the selection for the user by offering general information about the advantages or disadvantages of various clay products in a given situation.

When questions cannot be answered at the point of sale, all Chavant clay end-users or resellers are welcome to contact Chavant directly, where we will offer the best technical advice possible. Sample Kits, which currently contain ¼ pound samples of 17 different clays, are available to you or your clients from Chavant.

Chavant produces all clays with very high measures of quality control. Still, it is important to understand that slight variations in clay batches may occur. This narrow range of variation can be caused simply by the age of the clay. In addition, Chavant uses many naturally occurring raw materials and these products may be slightly different from batch to batch depending on the regional source of the material or even the time of year. If production runs fall outside of the range of acceptability, the finished product will not be shipped from the manufacturing premise.

All of Chavant modeling clays are certified as Non-Toxic and Non-Hazardous by the ACMI. All of our Fine Art clays bear the ACMI safety symbol. The Industrial Clays, although certified, do not bear the symbol.

The following glossary and collection of technical specification data presents general terminology guidelines to assist in our communication and the selection of the optimal product choice. This is a "best effort" to educate you and or your clients. No warranty, expressed or implied is intended.

Glossary of Terms Common to Chavant Clays

- **Adhesion** – The ability for a product to stick to other, non-similar, materials.
- **Aging** – Clay has a life cycle that can sometimes be accelerated. Aging can describe physical changes in clay over time.
- **Armature** – The substructure that supports a clay model.
- **Billet** – A billet, offered as blocks or cylinders, is the finished extruded form that the clay is packaged in. The approximate size of the block billet forms are 1 pound blocks, 1" x 4" x 4"; 2 pound blocks, 2 ¾" x 2 ¾" x 5½"; 5 pound blocks, 5 ¾" x 5 ¾" x 6; and 10 pound blocks 5 ¾" x 5 ¾" x 12". The approximate size of the cylinder billets are 2 ½" x 12" (2 ½ pounds each); 3" x 8" (3 pounds each); and 3" x 16" (6 pounds each).
- **Burning Clay** – Used when describing overheating clay in a warming device or by the exothermic reaction created by some mold making materials.
- **Cast** – The positive form that reproduces the negative shape of a mold taken from the positive clay pattern. The cast will be an exact duplicate of the clay model.
- **Clay Body** – A term used to describe different clay formulas with different characteristics.
- **Cohesion** – The ability for a product to stick to itself or similar materials.
- **Consistency** – The uniform or homogenous properties within an individual clay body. Also used to compare similar qualities from production batch to production batch.
- **DeAired** – A process of clay extrusion. By running a clay through the DeAiring process, a clay becomes smoother and more homogenous. This procedure is a vigorous mixing cycle that reduces ingredient particle size and removes entrapped air, creating a finished product that has a somewhat higher density.
- **Extrusion** – Process of forcing clay through a pre-cut die shape.
- **Filler** – Inert material mixed together with other clay ingredients to create the clay body base.
- **Fine Art Clay** – Clay used in the Fine Arts field for sculpture.
- **Firmness** – A value, from 1 – 10, associated to the room temperature hardness of clay, with "1" being the softest clay and "10" being the hardest clay.
- **Industrial Design Clay** – (Hard Styling Clay) Clay developed for use by Industrial or Product designers. Has the ability to hold exacting detail and to be polished to a glasslike finish. Template shapes can be pulled through Industrial Design clay to create an accurately reproduced, dimensionally stable shape. Industrial Clays can also be milled.
- **Length** – The ability of a clay body to stretch, bend or twist. If you were to roll clay into a pencil shape and stretch it, sometimes it will fracture, other times it will pull apart and eventually split in a "taffy" like point. Greater length means more flexibility.
- **Melting point** – The temperature where a clay body becomes fluid.

- **Mold Making** – The process of reproducing a negative form from a positive shape of clay. Flexible mold making materials include urethane, silicone, latex and polysulfide rubbers. Rigid mold making materials include plaster and fiberglass.
- **MSDS** – Material Safety Data Sheet
- **Non Hazardous** – Chavant has had its clays certified by the ACMI (Art & Creative Material Institute). The ACMI definition is “Products bearing the AP approved Product Seal of ACMI are certified in a program of toxicological evaluation by a medical expert to contain no materials in sufficient quantities to be toxic or injurious to humans or to cause acute or chronic health problems. ACMI’s Toxicological Board regularly reviews this program. These products are certified by ACMI to be labeled in accordance with the chronic hazard labeling standard, ASTM-4236 and Federal Law, P.L. 100-695. In addition, there is no physical hazard as defined within 29 CFR Part 1910.1200 (c).”
- **Non Toxic** – See Non Hazardous.
- **Oxidation** – A reaction between oxygen and the surface of the clay, typically noticed as a hardening of the immediate surface of the clay. Higher temperatures, especially in clay ovens often accelerate oxidation.
- **Penetration** – The value, representing the distance a needle will push into clay at various temperatures. Chavant will refer to the Firmness of a clay body.
- **Plasteline, Plastilina, Plasticine** – A generic term to identify oil based sculpting clay from other types of clay.
- **Plastisizer** – Lubricant in clay to assist in moisture retention and flexibility.
- **Release Agents** – Products used to prevent mold making materials from sticking to clay models or to prevent cast parts from sticking in the mold.
- **Sealers** – Products used to incorporate a protective film (Barrier) over the clay, which will prevent a mold making material or other product, such as a paint, from coming into direct contact with the clay. Sealers can include shellac, lacquer or clear acrylic finishes.
- **Shelf Life** – Period of time before a product will lose some of its useful characteristics.
- **Slick** – A tool with rounded edges, made of polycarbonate or lexan, used to smooth the surface of a Hard Styling Clay model.
- **Splash Mold** – A mold taken from only an isolated portion of a model.
- **Sulphur Based** – Sulphur is a non-toxic filler used in many modeling clays. It provides a silky, unique feel to the clay, is readily available and its price is reasonably stable. Sulphur based sculpting clays produced by Chavant include Professional Plasteline and DaVinci. Industrial clays (often used by sculptors) which contain sulphur include CM-50, J-525, CM-70, I-305, I-307 and J-88.
- **Sulphur Free** – A clay body absent of sulphur. Sulphur Free clays produced by Chavant include the NSP product line, the Le Beau Touché product line and P-40.
- **Surface Development** – Clay surfaces can be modified by using various tools or fluid materials. Polished Lexan slicks can be used for highlighting Hard Styling Clays and many solvents can be used to smooth the Fine

Art Clays. Fluid solvents include but are not limited to water, turpentine, lighter fluid, mineral spirits, citrus-based cleaners and WD-40.

- **Surface Plate** – A perfectly level working area often with precisely measured grid markings used for coordinate measuring.
- **Template** – A predetermined shape cut into various materials including aluminum, Masonite or Lexan, which is pulled through the clay to transfer the shape into the clay.
- **Warming techniques** – Any method of heating clay to create a softer consistency. Most Plasteline is wax based therefore warmer temperatures will soften the wax. Typical temperature ranges to soften clay are 110° F to 145°F and many options exist to purchase or construct a “clay warmer”. Successful methods of clay warmer construction include many variations of any box with a light bulb as a heat source. Light bulb wattage may range from 25 watt to 100 watt and it is common to have more than one bulb and more than one wattage. Dimmer switches are often put “in-line” to regulate heat. Many good ovens have been made from old refrigerators! Restaurant bun warmers work well and specialty lab ovens are available.
- **Working Temperature** – Generally the temperature where clay is considered soft enough to comfortably work or apply by hand. This temperature can range from room temperature to 150° F depending on the formulation. Also used to describe the temperature considered best for pulling templates through clay or machine milling clay.



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Frequently Asked Questions:

- How much does clay weigh?
Although different clays have different densities a good estimate is 90 pounds per cubic foot.
- Can I mix different clays together?
Concerns with mixing different clays are color, reactions to rubber, hard/soft areas and cohesion. A user may hit firm areas and then soft areas when moving tools through the clay. Proceed with caution.
- How do I smooth the surface?
Try water, WD-40, Goof-Off, turpentine, lighter fluid and multipurpose oil/wax solvents by brush or hand. Some of the new “citrus” based cleaning fluids will work well.
- Why is sulphur used in some of the clays?
Sulphur is an inexpensive, non-toxic, filler that enhances the surface texture of the clay.
- Why is sulphur removed from some of your clays?
Sulphur free formulas are generally easier to make silicone or urethane rubber molds from.

Tip: Always test paints and mold making material prior to use on an actual project.

Guide to Chavant Clay Firmness (68° F)

1 = Softest; 10 = Hardest

Bold Print = Industrial Design Clay

- | | |
|--------------------------------------|--------------------------------------|
| 1. DaVinci Soft | 6. Type J-525, DeAired CM-50 |
| 2. DaVinci Firm | 7. NSP Med., CM-70, DeAired J |
| 3. Professional Plasteline | 8. NSP-Hard, I-307 |
| 4. Le Beau Touché , NSP Soft | 9. P-40 |
| 5. Le Beau Touché – HM, CM-50 | 10. J-88, I-305 |

This table establishes a general guideline only and is relevant only to Chavant clays. Although formulations remain constant, clay characteristics can vary due to age and the actual specifications of naturally occurring raw materials used in the production of Chavant clays.



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Clay Name:

Professional Plasteline

Description: Chavant Professional Plasteline is the original sculpting clay formula developed by Mr. Claude Chavant in 1892. The name was Trade-Marked by Chavant in 1927. Each of Chavant's various clays are used by industry professionals and the name "Professional Plasteline" should not limit the use of alternative clays by Professionals. Professional Plasteline is simply a name for one of the Chavant product lines.

The basic formulation of Professional Plasteline has not changed very much during the past 100 years. It is a sulphur-based clay body that is pliable at room temperature. It is available in only one grade of firmness. If clients prefer a firmer clay body with similar characteristics to Professional Plasteline they should consider the Industrial Clays CM-50 or CM-70. Fantastic sculptural works have been achieved using these products.

Professional Plasteline is one of the softest clays Chavant produces. DaVinci, soft and firm, are even softer. The sulphur filler gives this clay a silky feel appreciated by many artists. The clay has some amount of length but is susceptible to cracks when armatures move under the weight of the clay. Professional Plasteline is available in Brown or Gray-Green.

Professional Plasteline is most commonly used by artists for the creation of sculpture and is often used to fill cracks in industrial patterns or to build dams when making splash molds.

Handling Tips: Professional Plasteline can be warmed to soften further. Using small amounts of water as a lubricant on the surface of the clay will help to attain a smooth surface.

Unique Prop's: Silky, smooth surface.

Firmness: "3" on a scale of 1-10. See Firmness Chart, page 5.

Softening point: Professional Plasteline is generally used at room temperature but it is not uncommon to warm the clay to 110° F - 120° F to soften it even further.

Working Temp: Room Temperature

Cautions: Professional Plasteline contains sulphur, which may cause a burning sensation in the eyes of some users. Although not dangerous it may be uncomfortable. Over heating sulphur based clay will cause the sulphur to crystallize, which is easy to identify by the small, sand like granules which will be seen after the clay has been burned.

Hygiene: Wash hands with soap and water after use.

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Clay Name: **NSP (Non-Sulphurated Plasteline)**

Description: NSP was introduced in 1993. The intention was to eliminate the sulphur filler in a professional grade sculpting clay, which often caused inhibition problems with various liquid rubber mold-making materials.

The NSP product line consists of clays that contain higher percentage of wax components making the clays somewhat “tuffer”. Available in Soft, Medium or Hard (terms only relevant to the NSP product line) these clays have good adhesive qualities, flexibility and length. Because they are “tuffer” NSP tends to accept cut detail lines very cleanly, with no ragged edges. The surface texture of NSP will be somewhat “grabby” when compared to sulphur-based clays and even the NSP – Soft is rather firm by some people’s standards.

NSP is available in Brown or Gray-Green. All three grades of NSP – Brown are the same shade of Brown color. The Gray-Green shades are all different. Clients often want to mix clays. Sometimes clients want the mixed clay to be the same color other times they want the color to be different.

NSP is commonly used by artists for the creation of sculpture and is often used to fill cracks in industrial patterns or to build dams when making splash molds. Product designers who freehand sculpt also use NSP.

NSP is subject to surface oxidation. If the clay is in its original package it will have a long shelf life, certainly months and probably years. If the clay is repeatedly heated and cooled, oxidation is accelerated. Sometimes this characteristic is beneficial in handling or mold making since the surface can become harder. Clients rarely comment on oxidation.

Handling tips: NSP can be warmed to soften but as it softens it also becomes sticky. Using small amounts of water, citrus-based solvents, lighter fluid, latex paint removers, turpentine or mineral spirits as a lubricant on the surface of the clay will help to attain a smooth surface.

Unique Prop’s: NSP can actually be melted and poured as a casting, brushed or sprayed. The melting point is approximately 175° F.

Firmness: **Soft “4”, Medium “7”, Hard “8”** on a scale of 1-10. See Firmness Chart on page 5.

Softening point: NSP - Soft is generally used at room temperature. NSP – Medium and Hard are most often warmed to a temperature of 110° F - 120° F to soften it. When it returns to room temperature it also returns to the initial firmness.

Working Temp: Room temperature to 105° F.

Cautions: Due to potential oxidation, if a model is expected to sit for months at a time, it may be best to keep it out of direct sunlight and to cover it with a plastic bag to prevent direct contact with air.

Hygiene: Wash hands with soap and water after use.



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Clay Name: **Le Beau Touché & Le Beau Touché - HM**

Description: Le Beau Touché and Le Beau Touché – HM are two distinctly different products with some very similar characteristics. Both are sulphur free modeling clays that were introduced because of their exceptional smoothness and adhesive qualities. Le Beau Touché products are used by many types of artists who often are looking for a product that will stick to basically any armature material. Both Le Beau Touché formulas hold very good detail, carve and shape easily, have tremendous flexibility and will not dry or crack.

Le Beau Touché – HM is preferred by clients working in warmer climates, above 90° F. It is very similar to the original Le Beau Touché but is slightly firmer and less tacky at room temperature. The original Le Beau Touché is very sensitive to heat variations but the HM formulation will remain stable even at higher temperatures.

Le Beau Touché and Le Beau Touché – HM are every smooth and even flowing products. The smallest amount of heat, just friction from rubbing it in your hands, will soften the original Le Beau Touché. These clays may feel slightly firm in the original extruded blocks but slicing off small amounts will make it very manageable.

The Le Beau Touché product line is commonly used by artists for the creation of sculpture or to build dams when making splash molds. Both formulas are available in Brown and Gray-Green.

Handling tips: Le Beau Touché can be warmed to soften but as it softens it also becomes sticky. Le Beau Touché – HM can be warmed to soften and will work quite nicely at about 105° F. Using small amounts of citrus-based solvents, lighter fluid, latex paint removers, turpentine or mineral spirits as a lubricant on the surface of the clay will help to attain a smooth surface.

Unique Prop's: Le Beau Touché has great adhesive qualities allowing it to stick to all armature materials including aluminum wire, aluminum foil, cardboard, foam or paper. Le Beau Touché products will not oxidize and can be left out or heated and cooled repeatedly without any significant change in the product

Firmness: **Le Beau Touché “4”, Le Beau Touché-HM “5”** on a scale of 1-10. See Firmness Chart, page 5.

Softening point: Le Beau Touché and Le Beau Touché – HM are generally used at room temperature. Le Beau Touché – HM is sometimes warmed to a temperature of 110° F - 115° F to soften it. When it returns to room temperature it also returns to the initial firmness.

Working Temp: Le Beau Touché, up to 90° F maximum. Le Beau Touché – HM, room temperature to 105° F.

Cautions: Heat over 90° F will cause the original Le Beau Touché to get very soft and sticky and the clay will begin to sweat or sag. The HM formula will tolerate these normal changes.

Hygiene: Wash hands with soap and water after use.



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- Clay Name: **DaVinci**
- Description: DaVinci sculpting clay is based on a very traditional Italian formula. It is a sulphur based modeling clay with an exceptionally soft, smooth surface. Sculptors who have a loose technique style use DaVinci. This is not a clay body that will hold tight detail but it will move easily and can be very quickly shaped. It is often said that DaVinci feels much like a water based clay.
- DaVinci does not contain any wax and therefore it does not have much strength, flexibility or length.
- The DaVinci clays, Soft and Firm, terms relevant only to the DaVinci product line, are the softest clays manufactured by Chavant. It is available in only one color, Gray.
- DaVinci is used by artists and teachers for the creation of sculpture. DaVinci does not have a great deal of strength. If the model moves it may crack therefore a good armature is important.
- Handling tips: DaVinci is a very soft clay body, therefore it may tend to slump under its own weight. When using DaVinci it is suggested that an armature be created using “butterfly” stations attached to the primary armature structure.
- Unique Prop’s: Because DaVinci does not contain any wax, the finished clay is not significantly effected by heat. Cool clay will respond in much the same way as warm clay. This is very different than wax based clays, which will soften with heat and harden when cooled.
- Firmness: **DaVinci Soft “1”, DaVinci Firm “2”** on a scale of 1-10. See Firmness Chart, page 5.
- Softening point: DaVinci clay is very soft at room temperature and there is no need to warm it further.
- Working Temp: Room temperature
- Cautions: DaVinci contains sulphur, which may cause a stinging sensation in the eyes if brought into direct contact with the eyes.
- Hygiene: Wash hands with soap and water after use.



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Clay Name: **CM-50**
HARD STYLING CLAY

Description: CM-50 Industrial Hard Styling clay is used by product designers for the creation of automotive, marine, aerospace and consumer product models. Sculptors use CM-50 for high detail artwork, when a firmer clay body is desired, such as a #4 Plastilina, or if they want to incorporate various organic, smooth, curved shapes normally seen in transportation design into their sculpture.

CM-50 is the softest of Chavant's Hard Styling clay. Because of its room temperature firmness CM-50 is not the best choice for studios with a desire to machine the clay, although it can be milled successfully.

Normally warmed to approximately 135° F, CM-50 can also be modeled or sculpted at room temperatures. The surface and basic shapes of CM-50 can be worked nicely by hand at room temperature, although the flexibility is greatly reduced at room temperature. CM-50 is a sulphur-based product that has excellent qualities of adhesion, cohesion and consistency. It can be carved, extruded and slicked to an extremely smooth surface.

CM-50 is available as a DeAired clay. The DeAiring process reduces the individual clay compound particle sizes creating a smoother clay and, as the name suggests, entrapped air is removed from the finished clay billet making the clay more slightly more dense and better for extrusion processes. In my opinion, the DeAiring process will improve the working characteristic of the clay for many types of end users.

Handling tips: CM-50 Hard Styling Clay is most often warmed to its softening point before it is applied to armature. Care should be taken not to burn the clay during warming.

Unique Prop's: Hard styling clays can be shaped to a very accurate and stable model. Many types of molds including MDM, polyester, epoxy, urethane and silicone can be taken from the clay surface.

Firmness: **CM-50** ranks as a "5", on an internal scale of 1-10. See Firmness Chart, page 6.
DeAired CM-50 ranks as a "6" on an internal scale of 1-10. See Firmness Chart, page 6.

Density: 90 pounds per cubic foot.

Specific Gravity:

Softening point: 135° F - 150° F

Working Temp: Room Temperature to 135° F.

Cautions: All of Chavant's clays have been approved by ACMI to be Non-Toxic and Non-Hazardous. Some of these clays, including CM-50, contain sulphur, which may cause a burning sensation in the eyes

of some users. Although not dangerous it may be uncomfortable. Over heating sulphur based clay will cause the sulphur to crystallize, which is easy to identify by the small, sand like granules which will be seen after the clay has been burned. These granules are impossible to remove so burned clay should be discarded. Do not overheat / burn the clay. See MSDS.

Hygiene: Wash hands with soap and water after use.



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Clay Name: **J-525 (a.k.a. Type J)
HARD STYLING CLAY**

Description: J-525 Industrial Hard Styling clay is primarily used by product designers for the creation of automotive, marine, aerospace and consumer product models. Sculptors occasionally use J-525 for high detail artwork, when a firmer clay body is desired or if they want to incorporate various shapes normally seen in transportation design into the sculpture.

J-525 is recognized as a worldwide industry standard. It has a medium firmness at room temperature and can be shaped with modeling tools or templates. Because of its room temperature firmness J-525 is suitable for studios with a desire to machine the clay.

Normally warmed to approximately 145° F, a temperature that begins to feel hot in the users hands, J-525 will accept developed template shapes well at most temperatures. The surface and corners of J-525 can be smoothed nicely by hand at room temperature, although the flexibility is greatly reduced at room temperature. It would be difficult to take a cube of J-525 and roll it into a ball at room temperature. J-525 is a sulphur-based product that has excellent qualities of adhesion, cohesion and consistency. It can be carved, extruded and slicked to an extremely smooth surface.

J-525 is available as a DeAired clay. DeAired J-525 is one of Chavant's most popular products. The DeAiring process reduces the individual clay compound particle sizes creating a smoother clay and, as the name suggests, entrapped air is removed from the finished clay billet making the clay more slightly more dense and better for extrusion processes. In my opinion, the DeAiring process will improve the working characteristic of any Industrial Styling Clay that Chavant manufactures.

Handling tips: J-525 Hard Styling Clay is most often warmed to its softening point before it is applied to an armature. Care should be taken not to burn the clay during warming.

Unique Prop's: Hard styling clays can be shaped to a very accurate and stable model. Many types of molds including MDM, polyester, epoxy, urethane and silicone can be taken from the clay surface.

Firmness: **J-525** ranks as a "6", on an internal scale of 1-10. See Firmness Chart, page 6.
DeAired J-525 ranks as a "7", on an internal scale of 1-10. See Firmness Chart, page 6.

Density: 90 pounds per cubic foot.

Specific Gravity:

Softening point: 135° F - 150° F

Working Temp: Room Temperature to 145° F.

Cautions: All of Chavant's clays have been approved by ACMI to be Non-Toxic and Non-Hazardous. Some of these clays, including CM-50, contain sulphur, which may cause a burning sensation in the eyes of some users. Although not dangerous it may be uncomfortable. Over heating sulphur based clay will cause the sulphur to crystallize, which is easy to identify by the small, sand like granules which will be seen after the clay has been burned. These granules are impossible to remove so burned clay should be discarded. Do not overheat / burn the clay. See MSDS.

Hygiene: Wash hands with soap and water after use.



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Clay Name: **CM-70**
HARD STYLING CLAY

Description: CM-70 Industrial Hard Styling clay is primarily used by product designers for the creation of automotive, marine, aerospace and consumer product models. Sculptors occasionally use CM-70 for high detail artwork, when a firmer clay body is desired or if they want to incorporate various shapes normally seen in transportation design into the sculpture.

CM-70 is very firm at room temperature and can be shaped with modeling tools or templates. Because of its room temperature firmness CM-70 is suitable for studios with a desire to machine the clay.

Normally warmed to approximately 145° F, a temperature that begins to feel hot in the users hands, CM-70 will accept developed template shapes well at most temperatures. The surface and corners of CM-70 can be smoothed nicely by hand at room temperature, although the flexibility is greatly reduced at room temperature. It would be difficult to take a cube of CM-70 and roll it into a ball at room temperature. CM-70 is a sulphur-based product that has excellent qualities of adhesion, cohesion and consistency. It can be carved, extruded and slicked to an extremely smooth surface.

CM-70 is available as a DeAired clay. The DeAiring process reduces the individual clay compound particle sizes creating a smoother clay and, as the name suggests, entrapped air is removed from the finished clay billet making the clay more slightly more dense and better for extrusion processes. In my opinion, the DeAiring process will improve the working characteristic of any Industrial Styling Clay that Chavant manufactures.

Handling tips: CM-70 Hard Styling Clay is most often warmed to its softening point before it is applied to an armature. Care should be taken not to burn the clay during warming.

Unique Prop's: Hard styling clays can be shaped to a very accurate and stable model. Many types of molds including MDM, polyester, epoxy, urethane and silicone can be taken from the clay surface.

Firmness: **CM-70** ranks as a "7", on an internal scale of 1-10. See Firmness Chart, page 6.
DeAired CM-70 ranks as a "8", on an internal scale of 1-10. See Firmness Chart, page 6.

Density: 90 pounds per cubic foot.

Specific Gravity:

Softening point: 135° F - 150° F

Working Temp: Room Temperature to 145° F.

Cautions: All of Chavant's clays have been approved by ACMI to be Non-Toxic and Non-Hazardous. Some of these clays, including CM-50, contain sulphur, which may cause a burning sensation in the eyes of some users. Although not dangerous it may be uncomfortable. Over heating sulphur based clay will cause the sulphur to crystallize, which is easy to identify by the small, sand like granules which will be seen after the clay has been burned. These granules are impossible to remove so burned clay should be discarded. Do not overheat / burn the clay. See MSDS.

Hygiene: Wash hands with soap and water after use.



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Clay Name: **P-40**
HARD STYLING CLAY

Description: DeAired Industrial Hard Styling clay bodies are used by product designers for the creation of automotive, marine, aerospace and consumer product models. Sculptors also use these clays for high detail artwork or when a firmer clay body is desired.

The DeAiring process reduces the individual clay compound particle sizes creating a smoother clay and, as the name suggests, entrapped air is removed from the finished clay billet making the clay more dense.

P-40 is always DeAired. It is a sulphur-free product that has excellent qualities of adhesion, cohesion and consistency. The formula can be carved, extruded and slicked to an extremely smooth surface.

Handling tips: P-40 Hard Styling Clay is almost always warmed to its softening point before it is applied to an armature. P-40 is more subject to surface drying from oxidation, usually over a period of a year. Therefore projects started in P-40 should be finished in a timely fashion. Heating and cooling cycles will accelerate the oxidation process.

Unique Prop's: P-40 can be melted and poured into an existing mold. This can save a great deal of time on certain projects. As with all Hard Styling Clays it can be shaped to a very accurate and stable model. Many types of molds can be taken from the clay surface. P-40 can be melted and poured.

Firmness: P-40 ranks as a "9" on a scale of 1-10. See Firmness Chart, page 6.

Softening point: 135° F - 150° F

Working Temp: Room Temperature to 135° F.

Cautions: Some of these clays contain sulphur, which may cause a burning sensation in the eyes of some users. Although not dangerous it may be uncomfortable. Over heating sulphur based clay will cause the sulphur to crystallize, which is easy to identify by the small, sand like granules which will be seen after the clay has been burned. Do not overheat / burn the clay.

Hygiene: Wash hands with soap and water after use.



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Clay Name:

I-307
HARD STYLING CLAY

Description: I-307 Industrial Hard Styling clay is primarily used by product designers for the creation of automotive, marine, aerospace and consumer product models. Sculptors occasionally use I-307 for high detail artwork, when a firmer clay body is desired or if they want to incorporate various shapes normally seen in transportation design into the sculpture.

I-307 is very firm at room temperature and can be shaped with modeling tools or templates at any temperature. Because of its room temperature firmness I-307 is suitable for studios with a desire to machine the clay. I-307 has a reduced sulphur content minimizing odor. I-307 is very resistant to cracking.

Normally warmed to approximately 125° F, a temperature warm in the users hands, I-307 will accept developed template shapes well at most temperatures. The surface and corners of I-307 can be smoothed nicely by hand at room temperature and the flexibility will remain at room temperature even in extrusions. It would be difficult to take a cube of I-307 and roll it into a ball at room temperature. I-307 has a reduced sulphur base that has excellent qualities of adhesion, cohesion and consistency. It can be carved, extruded and slicked to an extremely smooth surface.

I-307 is available only as a DeAired clay. The DeAiring process reduces the individual clay compound particle sizes creating a smoother clay and, as the name suggests, entrapped air is removed from the finished clay billet making the clay more slightly more dense and better for extrusion processes. In my opinion, the DeAiring process will improve the working characteristic of any Industrial Styling Clay that Chavant manufactures.

Handling tips: I-307 Hard Styling Clay is most often warmed to its softening point before it is applied to an armature. Care should be taken not to burn the clay during warming. The best “slicked” surface on I-307 will be achieved after the clay body had completely returned to room temperature.

Unique Prop’s: Hard styling clays can be shaped to a very accurate and stable model. Many types of molds including MDM, polyester, epoxy, urethane and silicone can be taken from the clay surface. I-307 has a reduced sulphur content, reduced odor, lower softening point and greater resistance to surface cracking.

Firmness: **I-307** ranks as an “8”, on an internal scale of 1-10. See Firmness Chart, page 6.

Density: 90 pounds per cubic foot.

Specific Gravity:

Softening point: 120° F - 130° F

Working Temp: Room Temperature to 145° F.

Cautions: All of Chavant's clays have been approved by ACMI to be Non-Toxic and Non-Hazardous. Some of these clays, including I-307, contain sulphur, which may cause a burning sensation in the eyes of some users. Although not dangerous it may be uncomfortable. Over heating sulphur based clay will cause the sulphur to crystallize, which is easy to identify by the small, sand like granules which will be seen after the clay has been burned. These granules are impossible to remove so burned clay should be discarded. Do not overheat / burn the clay. See MSDS.

Hygiene: Wash hands with soap and water after use.



Clay Modeling Products
Since 1892, the finest name in modeling clay

Clay Name:

I-305 HARD STYLING CLAY

Description: I-305 Industrial Hard Styling clay is primarily used by product designers for the creation of automotive, marine, aerospace and consumer product models. Sculptors occasionally use I-305 for high detail artwork, when a firmer clay body is desired or if they want to incorporate various shapes normally seen in transportation design into the sculpture.

I-305 is very firm at room temperature and can be shaped with modeling tools or templates best when hot, immediately after application or when at room temperature. I-305 will not shape well at mid-range temperatures with templates. The surface will have a tendency to tear.

I-305 has a very low softening point making application easy. Because of its room temperature firmness I-305 is suitable for studios with a desire to machine the clay. I-305 has a reduced sulphur content minimizing odor. I-305 is very flexible and resistant to cracking.

Normally, I-305 is warmed to approximately 115° F, a temperature just warm in the user's hands. The surface and corners of I-305 can be smoothed nicely by hand at room temperature and the flexibility will remain at room temperature even in extrusions. It would be difficult to take a cube of I-305 and roll it into a ball at room temperature. I-305 has a reduced sulphur base that has excellent qualities of adhesion, cohesion and consistency. It can be carved, extruded and slicked to an extremely smooth surface.

I-305 is available only as a DeAired clay. The DeAiring process reduces the individual clay compound particle sizes creating a smoother clay and, as the name suggests, entrapped air is removed from the finished clay billet making the clay more slightly more dense and better for extrusion processes. In my opinion, the DeAiring process will improve the working characteristic of any Industrial Styling Clay that Chavant manufactures.

Handling tips: I-305 Hard Styling Clay is most often warmed to its softening point, 115° F, before it is applied to an armature. Above these temperatures, I-307 will become very soft. Care should be taken not to burn the clay during warming. The best "slicked" surface on I-305 will be achieved after the clay body had completely returned to room temperature.

Unique Prop's: Hard styling clays can be shaped to a very accurate and stable model. Many types of molds including MDM, polyester, epoxy, urethane and silicone can be taken from the clay surface. I-305 has a reduced sulphur content, reduced odor, lower softening point and greater resistance to surface cracking. Very low softening point.

Firmness: **I-305** ranks as a “10”, on an internal scale of 1-10. See Firmness Chart, page 6.

Density: 90 pounds per cubic foot.

Specific Gravity:

Softening point: 115° F - 120° F

Working Temp: Room Temperature to 120° F.

Cautions: All of Chavant’s clays have been approved by ACMI to be Non-Toxic and Non-Hazardous. Some of these clays, including I-305, contain sulphur, which may cause a burning sensation in the eyes of some users. Although not dangerous it may be uncomfortable. Over heating sulphur based clay will cause the sulphur to crystallize, which is easy to identify by the small, sand like granules which will be seen after the clay has been burned. These granules are impossible to remove so burned clay should be discarded. Do not overheat / burn the clay. See MSDS.

Hygiene: Wash hands with soap and water after use.