



ACCESSORIES

A wide variety of processing supplies and hardware to support the creation and duplication of parts, patterns, tools, and molds.

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CLAY MODELING PRODUCTS

CHAVANT INDUSTRIAL STYLING & SCULPTING CLAYS

Freeman stocks a complete line of high quality Chavant Modeling Clay products for the professional sculptor as well as the industrial designer.

Hardness Scale



Professional Plasteline

This modeling compound is ideal for the professional sculptor and all school levels. Plasteline is soft, smooth, permanently plastic, reusable and does not require heating. Contains sulphur.

SKU	Hardness	Size	Color	Net weight (lb.)
027200	3	1" x 3¾" x 4½"	Brown	1
027205	3	4½" x 4½" x 11"	Brown	10

Non-Sulphurated Plasteline (NSP)

This non-sulphurated sculpting clay offers similar performance to the Professional Plasteline. Although the clay does not contain sulphur, it may cause curing inhibition with certain silicone rubber. Use Protolina or Permoplast modeling clay to eliminate silicone inhibition.

SKU	Hardness	Size	Color	Net weight (lb.)
027201	4	2¾" x 2¾" x 5"	Brown	2
027202	7	2¾" x 2¾" x 5"	Brown	2
027203	9	2¾" x 2¾" x 5"	Brown	2

CM-50

Softest of the sulphur-type styling clays, this medium-hard formulation offers excellent adhesion and consistency for producing accurate models.

SKU	Hardness	Size	Color	Net weight (lb.)
027214	5	2½" x 12" Billet	Brown	2.5

MODELING CLAYS

Protolina Modeling Clays

This soft, sulphur-free modeling clay is ideal for use in styling and engineering shops, development and prototype work, and die and pattern shops. It will not deteriorate with age, is not sticky or greasy and will not crumble.

SKU	Hardness	Color	Net weight (lb.)
027204	2	Tan	1
027213	2	Gray	1
027228	2	Green	2

Permoplast Modeling Clays

A non-hardening modeling clay that is excellent for sculpting, creating parting lines for two part molds, and general mold making. It contains no sulfur, making it ideal for use with silicone rubbers.

SKU	Hardness	Color	Net weight (lb.)
027194	2	Cream	1
027195	2	Cream	5
027198	2	Green	1
027199	2	Green	5

CM-70

Hardest of the sulphur-type clays, this styling clay is popular throughout the automotive industry where surface detail and finish are critical.

SKU	Hardness	Size	Color	Net weight (lb.)
027217	7	2½" x 11" Billet	Brown	2

J-525

This hard formulation provides a slightly harder modeling compound than the CM-50. This results in better edge definition and surface detail. Contains sulphur.

SKU	Hardness	Size	Color	Net weight (lb.)
027215	6	2½" x 12" Billet	Brown	2.5
027207	6	3" x 16" Billet	Brown	6

Le Beau Touche

This extremely smooth plasteline clay does not contain sulphur and is often characterized as having the feel of a water-based clay. Also available in a higher melting point formulation.

SKU	Hardness	Size	Color	Net weight (lb.)
027221	4	2¾" x 2¾" x 5"	Brown	2

Y-2 Klay

Chavant's Y-2 Klay is the hardest product in their line of industrial styling clays. This clay is sulphur-free for use with silicone rubbers and is 30-40% lighter than other styling clays for ease of handling larger models.

SKU	Hardness	Size	Color	Net weight (lb.)
027206	10	2½" x 11" Billet	Dark Brown	1.75

Please see our website, www.FreemanSupply.com, for a full line of clay tools.



Clays can be used to adhere a part to the mold box.

PATTERN COATINGS



Freeman 90-1 in Red, Yellow, and Clear Orange

Freeman 90-1 Pattern Coating

The industry standard, Freeman 90-1 is a durable, high-gloss, fast-drying, lacquer-based coating made up of heat-resistant resins to withstand the chemicals and heat encountered with most no-bake binders. It is self-leveling and can be applied by spraying when thinned with Freeman Fre-Thin Thinner (page 122).

SKU	Size	Color	Net weight (lb.)
024105	Gallon	Clear	8
024110	Gallon	Clear Orange	8
024115	Gallon	Black	8
024120	Gallon	Red	8
024125	Gallon	Burnt Orange	8
024130	Gallon	Yellow	8
024135	Gallon	Gray	8
024140	Gallon	Aluminum	8
024145	Gallon	White	8

Freeman No. 60 Pattern Coating

Freeman No. 60 Pattern Coating is a sandable, high-build, gray-colored lacquer primer which is formulated for use with cold box and no-bake sand systems. It is ideal for wood patterns, low density polyurethane foam, and core boxes and it also used as a primer for 90-1 coatings.

SKU	Size	Color	Net weight (lb.)
024005	Gallon	Gray	8

Master Kincote Pattern Coating

Master Kincote is a durable, high-quality coating for wood patterns. It brushes on easily and adheres well, providing maximum protection by standing up to abrasion, moisture, chemical solutions and most foundry binder systems.

SKU	Size	Color	Net weight (lb.)
024500	Gallon	Aluminum	8
024505	Gallon	Black	8
024510	Gallon	Clear	8
024515	Gallon	Gray	8
024520	Gallon	Vermilion	8
024525	Gallon	Yellow	8

Master Foundry-Kote Pattern Coating

Master Foundry-Kote forms a smooth, hard film on patterns and core boxes that is water and oil resistant. It resists sand abrasion and protects patterns and core boxes against most no-bake binders. Easily brushable, this self-leveling coating dries rapidly and adheres readily to wood, metal, plastic and most other surfaces. It is intended as a final clear coat.

SKU	Size	Net weight (lb.)
024530	Gallon	8

Freeman Wood & Plaster Sealer

This clear lacquer sanding sealer may be applied by brush or spray and is ideal for sealing wood master models to prepare the surface for plastic duplication. It is formulated to seal wood, plaster, sheet wax, MDF and other porous materials. For basic release procedures, see page 136. Use Fre-Thin Thinner (page 122) for desired viscosity.

SKU	Size	Net weight (lb.)
054554	12 oz. (aerosol)	1
054553	Pint	0.8
054550	Gallon	10
054551	5 Gallon	50

Bacolac Professional Sandable Sealer

This clear material is specifically formulated as a high-build, easily sandable coating for sealing and smoothing wood, MDF, plaster, and other porous surfaces.

SKU	Size	Net weight (lb.)
054531	Gallon (Sealer)	8
054532	Gallon (Reducer)	8

Krylon® Tough Coat™ Gray Sandable Primer

This lacquer-based primer fills in porosity and other imperfections on models and rigid molds. It is fast drying, easily sandable, and can be top-coated with another high gloss lacquer if desired.

SKU	Size	Net weight (lb.)
038064	12 oz. can	1

Flake Shellac

Freeman offers the highest grade of light orange flake shellac. A bright, hard and glossy surface can be achieved when mixed with Alcohol Solvent. The mix ratio is 4 lb. of Flake Shellac to 1 gallon of Alcohol Solvent (page 122).

SKU	Size	Net weight (lb.)
027110	by the pound	1

Prepared Shellac

This amber, shellac-based sealer is an excellent product for painting wood, plaster, and other porous surfaces. It will remain bright and dry hard.

SKU	Size	Net weight (lb.)
027116	Gallon	11

Dunapox

This epoxy sealer can be applied to polyurethane, epoxy, and other tooling materials and is designed for applications up to 400°F. It is excellent for high-temperature curing prepregs, composite layup tooling, prototyping, and master model making. Once cured the sealer has a Shore D hardness of 85, resulting in a tough ultra-smooth tool surface that is ideal for the demanding tolerances of today's aerospace industry. It is easy to apply as it can be brushed, rolled or sprayed.

SKU	Size	Net weight (lb.)
024000	Gallon (Blue)	8.3
024001	Gallon (Black)	8.3

MOLD SURFACING PRODUCTS

Duratec products are designed to quickly establish a hard, durable, high-gloss surface on lower cost mold materials such as RenShape Polyurethane Foam boards, MDF, plaster, and wood. They may also be used to resurface polyester molds to increase mold life. Each product must be used with the Duratec Hardener (sold separately).

Duratec Polyester Clear Sealer

This low viscosity, two-component, rapid-curing sealer anchors Duratec primers to porous or hard-to-bond substrates such as MDF, wood, plaster, and concrete. It features a 14-16 minute gel time and may be top coated in 1-2 hours.

SKU	Size	Mfg. No.	Net weight (lb.)
024452	Gallon	823	9.5

Duratec Polyester Sanding & Surfacing Primers

The Sanding Primer is the original formulation for easy sanding on applications that require only a moderate shine. The Sanding Primer EZ is even easier to sand and produces a higher luster finish. The Surfacing Primer, while more difficult to sand, produces the highest luster. Duratec Clear Hi-Gloss additive may be added for even greater shine.

SKU	Description	Mfg. No.	Net weight (lb.)
024472	Duratec Gray Sanding Primer (Gallon)	707-007	10.9
024482	Duratec Gray Sanding Primer EZ (Gallon)	707-061	11.8
024455	Duratec Gray Surfacing Primer (Gallon)	707-002	10.9
024458	Duratec White Surfacing Primer (Gallon)	714-002	10.9
024456	Duratec White Surfacing Primer (5 Gallon)	707-002	57.7
024475	Duratec Clear Hi-Gloss Additive (Gallon)	904-001	8.5

Duratec Vinyl Ester Surfacing Primer

This two-component polyester surfacing compound is similar to the regular Surfacing Primer but offers a higher heat-distortion temperature of 280°F. It is ideal for surfacing vacuum form tools and as a high-temperature gel coat reinforced with epoxy laminates. It features an 18-22 minute gel time and may be sanded within 1-6 hours to a high-gloss finish.

SKU	Size	Mfg. No.	Net weight (lb.)
024484	Gallon	1799-005	11.2

Duratec StyroShield Primer

This unique polyester primer may be applied directly to Expanded Polystyrene (EPS) Foam models or patterns without attacking the surface. StyroShield forms a barrier that enables conventional polyester resins, putties, and surfacing materials to be used to create a hard, smooth, and shiny surface. It may be applied by spray, brush, or roller.

SKU	Size	Mfg. No.	Net weight (lb.)
024473	Gallon	707-018	6.6

Duratec Hardener

This MEKP hardener is required for use with all of the Duratec resins listed. Two of the 1.48 oz. bottles catalyze one gallon of resin.

SKU	Size	Mfg. No.	Net weight (lb.)
024465	1.48 oz.	411	0.1

Formula Five Clean 'N Glaze

This mild buffing compound is used to remove fine scratches and surface hazing from mold surfaces. It will also produce a high luster finish for subsequent applications of mold wax.

SKU	Size	Net weight (lb.)
054270	Quart	2.2

FREEMAN INDUSTRIAL SOLVENTS

Freeman Lacquer Thinners

90-1 Fre-Thin Lacquer Thinner is our premium product for reducing 90-1 Pattern Coatings, Wood & Plaster Sealer, and No. 60 Coating. 45 Lacquer Thinner is an economical alternative for less demanding performance.

SKU	Size	Net weight (lb.)
024155	90-1 Fre-Thin (Gallon)	8
024210	90-1 Fre-Thin (5 Gallon)	40
024405	45 Lacquer Thinner (5 Gallon)	41

Master Kincote Thinner

Master Kincote Thinner is formulated for use with Master Kincote and Foundry-Kote. It is ideal for thinning out coatings and is an excellent solvent for cleaning brushes.

SKU	Size	Net weight (lb.)
024600	Gallon	8
024605	5 Gallon	40

Please see our website, www.FreemanSupply.com, for additional solvents.

Alcohol Solvent

Pure methyl alcohol for use in our alcohol lamps is the best solvent available for cutting flake shellac and various cleaning requirements.

SKU	Size	Net weight (lb.)
027130	Gallon	10
027135	5 Gallon	50

Polyester Thinning Agent

Polyester Thinning agent is a specialized resin used to thin the viscosity of polyester repair and build-up materials.

SKU	Size	Net weight (lb.)
053900	Quart	2.2

Freeman Acetone Solvent

Freeman Acetone is a popular solvent for removing uncured resins, greases, and most wax release agents from work surfaces or molds. This product dries quickly and leaves no residue behind.

SKU	Size	Net weight (lb.)
023210	Quart	2.1
023215	Gallon	8
023217	5 Gallon	40

SACRIFICIAL MOLD RELEASES

WAX-BASED MOLD RELEASES



Freeman Wax Release

Freeman Wax Release

This product is formulated and manufactured by Freeman specifically for the effective release of urethanes, epoxies, or polyester resins. It has a gel-like consistency that is easily applied with a brush. For basic release procedures, see page 136.

SKU	Size	Net weight (lb.)
055051	Quart	1.5
055052	Gallon	6.1
055053	5 Gallon	30.5

Johnson Paste Wax

This is a good general-purpose release agent for epoxies, urethanes, rubber, acrylics or ceramics.

SKU	Size	Net weight (lb.)
027885	1 lb. Can	1

ISOKote 531

ISOKote 531 is an effective wax release of urethanes, epoxies, and polyester resins. ISOKote 531 is available in aerosol or liquid form.

SKU	Size	Net weight (lb.)
057428	14 fl. oz. Aerosol	1
057429	Quart	1.8

Trewax® Clear Paste Wax

Trewax is a high-quality, carnauba-based paste wax preferred by many moldmakers to effectively release epoxies, polyesters, and polyurethanes.

SKU	Size	Net weight (lb.)
027884	12.35 fl. oz.	0.8

RenLease 803-1

RenLease 803-1 is a white liquid parting agent that may be brushed or sprayed. It dries clear, and may be polished for high gloss. It offers an excellent release at temperatures up to 250°F and from all types of surfaces. Contains a small amount of silicone. A minimum of three coats is recommended.

SKU	Size	Net weight (lb.)
056222	Quart	1.5
056221	5 Gallon	33

RenLease 805-1

RenLease 805-1 White paste wax is an excellent release at temperatures up to 250°F. It is easy to apply and buffs to high gloss. RenLease 805-1 does not contain silicone.

SKU	Size	Net weight (lb.)
056205	Quart	1

Partall Paste #2

Paste #2 is a hard paste wax that is effective as a release agent for urethanes, epoxies, or polyester resin systems. It contains no silicone.



SKU	Size	Net weight (lb.)
054267	24 oz. Can	1.5

Partall Hi-Temp Wax

Hi-Temp Wax is a blend of waxes and semi-permanent release agents creating an excellent release for resins that cure or catalyze at temperatures between 150°F - 350°F. It contains no silicone.

SKU	Size	Net weight (lb.)
054266	12 oz. Can	0.8

Chemwax 500

Chemwax 500 is a wax release agent designed to be applied and let dry. This material offers fast solvent evaporation, no buffing requirements, and temperature stability to 300°F. May be applied with spray equipment, wiping, or brushing. It is an excellent release for expandable urethane foam.

SKU	Size	Net weight (lb.)
058374	Gallon	5.8
058376	5 Gallon	29

Formula Five Mold Release Wax

Formulated using carnauba wax, hydrocarbon waxes, and silicone to produce a highly effective mold release. Supplied in a paste consistency, this release is ideal for use with polyesters, epoxies, or urethanes.

SKU	Size	Net weight (lb.)
054271	12 oz. Can	0.8

SILICONE-BASED MOLD RELEASES

Caution: Silicone-based mold releases should not be used on parts that require painting.

RenLease 76 Silicone Spray

RenLease 76 Silicone Spray is a premium quality silicone based spray release designed for use on epoxies and polyurethanes. It offers an improved spray pattern and improved dispersal from can.

SKU	Size	Net weight (lb.)
056195	12 fl. oz.	1

RenLease 78-2 Silicone Spray

RenLease 78-2 Silicone Release Agent is formulated specifically for epoxy and polyurethane resin systems. It forms a slick, non-melting surface with a heat-resistance of 400°F.

SKU	Size	Net weight (lb.)
056210	9.25 fl. oz.	1

Silicone Spray

This is a high-solids content liquid in an aerosol can. Silicone Spray is used to release epoxies or urethanes from any mold. It has a heat resistance up to 600°F for high heat applications.

SKU	Size	Net weight (lb.)
054420	12 fl. oz.	1.5

Chemlease 66H Silicone Release Agent

Chemlease 66H is a silicone for the effective release of epoxies and urethanes. Excellent temperature resistance of 600°F for hot molded parts. Available in liquid and aerosol packaging.

SKU	Size	Net weight (lb.)
058310	9.5 fl. oz. Aerosol	0.58
058334	Gallon	5.9
058336	5 Gallon	29.7

MR-515 Release Agent

This specialized release agent is for releasing urethane rigid foams, cast urethane elastomers, and other thermoset resins.

SKU	Size	Net weight (lb.)
058490	Aerosol	1

Chemlease 5051 Release Agent

Chemlease 5051 (formerly known as MR-515H) is a specialized silicone release agent designed specifically for releasing urethane rigid foams, cast urethane elastomers, and other thermoset resins. For best results, apply using conventional spray equipment. Reapply after every part to ensure good release.

SKU	Size	Net weight (lb.)
058496	5 Gallon	30
058498	55 Gallon	330

PVA-BASED MOLD RELEASES

Partall Film #10

Partall Film #10 is a water and alcohol based polyvinyl alcohol (PVA) coating comprised of water soluble, film forming materials. It is excellent for releasing epoxies, polyesters, and urethanes. For basic release procedures, see page 136.

SKU	Size	Net weight (lb.)
054251	Pint (Green)	0.9
054256	Gallon (Green)	9
054261	5 Gallon (Green)	42
054262	5 Gallon (Clear)	41

Partall Coverall Film PVA

Partall Coverall Film is a non-flammable, water based, polyvinyl alcohol (PVA) coating comprised of non-hazardous, film-forming materials. It is excellent for releasing epoxies, polyesters, and urethanes.

SKU	Size	Net weight (lb.)
054269	Gallon (Purple)	9

OTHER RELEASE AGENTS



Pattern Release 202

Ideal for patterns and coatings used in the preparation of silicone rubber molds and will prevent silicone from adhering to cured silicone. This petroleum jelly may be used on a wide variety of pattern materials.

SKU	Size	Net weight (lb.)
054426	16 fl. oz.	1.5

Sprayon P.T.F.E. Dry Film Mold Release

Sprayon P.T.F.E. Dry Film Mold Release is made with DuPont Krytox® Dry Film, which provides excellent anti-stick properties that will not transfer to the finished part. This product contains no silicone to interfere with the painting of finished parts. Temperature resistance to 575°F.

SKU	Size	Net weight (lb.)
038077	12 fl. oz.	1

Sprayon Paintable Mold Release

Sprayon Paintable Mold Release exhibits excellent release properties where low silicone concentration is required and will not interfere with coating or bonding operations subsequent to molding.

SKU	Size	Net weight (lb.)
038078	12 fl. oz.	1

SEMI-PERMANENT RELEASE SYSTEMS

CLEANERS - SOLVENT BASED

Chemlease Mold Cleaner EZ

Mold Cleaner EZ removes release agents, buffing and polishing compounds, dirt, and grease from a variety of mold surfaces. The resulting surface is then suitable for applying Chemlease semi-permanent primers and sealers, ensuring a good chemical bond. It does not contain any chemicals listed on the Hazardous Air Pollutants list (HAPs).

SKU	Size	Net weight (lb.)
058194	Gallon	6.3
058196	5 Gallon	31.3

Chemlease Mold Cleaner 101

Chemlease Mold Cleaner 101 is excellent for removing excess wax and resin build-up on metal mold surfaces used to construct composite tools. Spraying the surface to be treated and permitting to soak for a period of time has proven an effective method.

SKU	Size	Net weight (lb.)
058610	5 Gallon	42.9
058612	55 Gallon	471.4



Chemtrend offers a variety of release system products.

Zyvax Surface Cleaner

Zyvax Surface Cleaner aids in the preparation of new and used molds/tools prior to treatment with Zyvax mold conditioners and release agents. It removes waxes and other surface contaminants without harming or dulling the mold's working surfaces. It will also clean brushes and spray equipment.

SKU	Size	Net weight (lb.)
300005	Gallon	9

PRIMERS - SOLVENT BASED

Chemlease MPP 2180

MPP 2180 is a heavy-duty primer that prepares and seals mold surfaces. It is excellent for polyester, phenolic, metal, RenShape Epoxy and some RenShape Polyurethane tooling boards. It provides a smooth, non-porous surface for the application of semi-permanent sealers and release agents. MPP 2180 is a mold primer only and has no release properties. It is a less hazardous alternative to MPP 117.

SKU	Size	Net weight (lb.)
058212	Quart	1.8
058214	Gallon	7
058216	5 Gallon	35.2

Chemlease MPP 117

MPP 117 is a one-component mold primer for polyester, epoxy, phenolic, and metal molds. Two coats of this material are typically sufficient to seal the mold surface. It is not a release agent and requires Chemlease release agents to be applied over the cured surface to ensure good demold.

SKU	Size	Net weight (lb.)
058204	Gallon	7



Chemlease MPP 2180 greatly improves the surface of RenShape 5065 (page 16).

SEALERS - SOLVENT BASED

Chemlease 15 Sealer EZ

Chemlease 15 Sealer EZ is specifically designed to minimize mold porosity when using semi-permanent release agents. It is compatible with fiberglass, metals, and most solid or dense surfaces. It does not contain any chemicals listed on the Hazardous Air Pollutants list (HAPs).

SKU	Size	Net weight (lb.)
058002	Quart	1.6
058004	Gallon	6.3
058006	5 Gallon	31.6

Mono-Coat E308 Mold Sealer

Mono-Coat E308 is a solvent based semi-permanent mold sealer specifically designed to be used on Monolithic Graphite Molds.

SKU	Size	Net weight (lb.)
058660	Gallon	6.8

MOLD RELEASES - SOLVENT BASED

Chemlease One FS EZ

Chemlease One FS EZ is a semi-permanent release that is easy to apply and provides multiple releases for high gloss composite molding. Used as a wipe-on only product.

SKU	Size	Net weight (lb.)
058474	Gallon	6
058476	5 Gallon	30.2
058478	55 Gallon	333

Chemlease PMR EZ

Chemlease PMR is a semi-permanent release specifically designed for the composites industry where a high quality finish is required. This product features multiple releases between applications and produces an excellent gloss with minimal transfer to the finished part. Used as a wipe on/wipe off product. Chemlease PMR-90 EZ is a higher slip formulation of Chemlease PMR EZ.

SKU	Size	Net weight (lb.)
058244	Gallon	6
058246	5 Gallon	30

Chemlease PMR-90 EZ

Chemlease PMR-90 EZ is a high-slip version of the Chemlease PMR EZ for closed molding of abrasive materials or low draft parts. This product features multiple releases between applications and produces an excellent gloss with minimal transfer to the finished part. Used as a wipe-on / wipe-off product. This material does not contain any chemicals listed on the Hazardous Air Pollutants list (HAPs).

SKU	Size	Net weight (lb.)
058264	Gallon	6

Mono-Coat E179 N-ODS

Mono-Coat E179 N-ODS is a solvent based, semi-permanent release where transfer of the release to the molded part is minimal. This product may be applied to hot or cold mold surfaces.

SKU	Size	Net weight (lb.)
058658	Gallon	6.4

Chemlease R&B EZ

Chemlease R&B EZ is a high-slip, semi-permanent release for closed molding of abrasive materials or low draft parts. This product features multiple releases between applications and produces an excellent gloss with minimal transfer to the finished part. Used as a wipe-on / wipe-off product.

SKU	Size	Net weight (lb.)
058424	Gallon	6.1
058426	5 Gallon	31.7

Chemlease 41 EZ

Chemlease 41 EZ is a semi-permanent release specifically designed for the composites industry where a matte finish is desired. This product features multiple releases between applications with minimal transfer to the finished part. Used as a wipe-on / wipe-off product.

SKU	Size	Net weight (lb.)
058024	Gallon	6
058026	5 Gallon	30

Chemlease 41-90 EZ

Chemlease 41-90 EZ is a high slip semi-permanent release designed for non-cosmetic parts and multiple releases. Used as a wipe-on / wipe-off product. This material does not contain any chemicals listed on the Hazardous Air Pollutants list (HAPs).

SKU	Size	Net weight (lb.)
058044	Gallon	6
058046	5 Gallon	30

Chemlease 70 EZ

Chemlease 70 EZ is a semi-permanent release specifically designed for the composites industry where a high quality finish is required. This product features multiple releases between applications and produces an excellent gloss with minimal transfer to the finished part. Used as a wipe-on / wipe-off product.



SKU	Size	Net weight (lb.)
058064	Gallon	6

Chemlease 70-90 EZ

Chemlease 70-90 EZ is a high slip semi-permanent release for closed molding of polyester parts. This product features multiple releases between applications and produces an excellent gloss with minimal transfer to the finished part. Used as a wipe-on / wipe-off product.

SKU	Size	Net weight (lb.)
058084	Gallon	6

Chemlease IM02

Chemlease IM02 is an internal release system and lubricant that may be added to polyester resins to reduce the dependency on the external release agent. Normally used in concentrations of 0.5 to 1.0%, this product should be used for non gel-coated part molding only.

SKU	Size	Net weight (lb.)
058414	Gallon	7.1
058416	5 Gallon	35.7
058418	55 Gallon	377.9

CLEANERS - WATER BASED

Zyvox Waterclean Mold Cleaner

Waterclean provides an environmentally safe and effective water-based alternative for the removal of surface contaminants. It is non-hazardous, non-flammable and does not harm the surface. It eliminates sanding and/or solvent washing when preparing parts for painting, bonding or other processes that require a completely clean surface.

SKU	Size	Net weight (lb.)
300001	Gallon	9

Zyvox Waterworks Fresh Start Mold Cleaner

Zyvox Waterworks Fresh Start has been developed for use in the aerospace industry to clean a tool or finished part to a waterbreak-free surface without the use of solvents or other hazardous components. Fresh Start is effective in removing most contaminants and semi-permanent release coatings on both new and existing tools.

SKU	Size	Net weight (lb.)
300092	16 oz.	1
300080	5 Gallon	45



Zyvox Waterclean Mold Cleaner is used on RenShape 5008 (page 16).

SEALERS - WATER BASED

Zyvox Sealer GP

Zyvox Sealer GP is a high modulus, clear, flexible film with superior substrate adhesion that forms a protective shield on the mold or tool surface. As a conditioner, Sealer GP is designed to treat both the chemical and physical bonding sites found on every raw mold surface. In addition, Sealer GP provides the base needed to extend the life of the release coating and will allow optimal performance from the release coating.

SKU	Size	Net weight (lb.)
300020	Gallon	9

Zyvox Sealproof Mold Release Agent Conditioner

Zyvox Sealproof is a durable non-VOC visible film that offers a matte surface and superior adhesion to wood, gelcoat, steel, carbon-graphite, fiberglass, aluminum and all types of composites. When applied in conjunction with Enviroshield Release Agent, it provides multiple releases and reduces cleaning time. For a totally solvent-free mold release system, use Zyvox Waterclean, Zyvox Sealproof and Zyvox Enviroshield.

SKU	Size	Net weight (lb.)
300010	Gallon	9

MOLD RELEASES - WATER BASED

Chemlease 2191W

Chemlease 2191W is an environmental friendly water-based release agent for FRP composites as well as advanced composite epoxy and phenolic prepreg molding. Chemlease 2191W can be sprayed or wipe applied with minimal transfer of release agents onto the composite tool.

SKU	Size	Net weight (lb.)
058620	Gallon	8.3

Zyvox EnviroShield

This versatile, odorless and non-VOC release agent is for applications requiring multiple releases, superior surface finish with high gloss, and easy touch-up for seamless production cycles. Enviroshield gives outstanding release performance when applied over Sealer GP. It chemically bonds to the mold surface and, when applied correctly, will not transfer to the molded part or other processing equipment.

SKU	Size	Net weight (lb.)
300025	Gallon	9

Zyvox WaterShield

Zyvox WaterShield is a high-performance polymer coating created to give multiple releases while exceeding the most demanding environmental requirements. WaterShield has no VOC's, is so versatile it can be used for most molding operations, and is preferred for application directly on warm mold tools.

SKU	Size	Net weight (lb.)
300030	Gallon	9

Zyvox Flex-Z

Flex-Z provides flexibility in various mold release levels. Formulated to control physical and chemical factors in polyester-molding environments, Flex-Z reduces prep time, eliminates sag and delivers predictable release across the performance spectrum from minimum to maximum slip.

SKU	Size	Color	Slip level	Net weight (lb.)
300050	Gallon	#1 Red	Minimum	9
300055	Gallon	#2 Purple	Low/Medium	9
300060	Gallon	#3 Yellow	Medium	9
300065	Gallon	#4 Orange	Medium/High	9
300070	Gallon	#5 Blue	High	9
300075	Gallon	#6 Green	Extra High	9

Zyvox Waterworks Departure

Zyvox Waterworks Departure is a non-hazardous mold release system designed specifically for the aerospace industry. It combines the latest release technology with the convenience of an environmentally safe product. The Waterworks system is free from hazardous and flammable materials, and government safety approval means no costly facility improvements. Departure is thermally stable up to 500° F. (260° C.).

SKU	Size	Net weight (lb.)
300087	Quart	2.1
300090	Gallon	9
300089	1 canister (100 wipes)	2.2

ROTATIONAL MOLD RELEASE SYSTEMS

CLEANERS AND PRIMERS

Chemtrend MOC-1EZR

Chem-Trend MOC-1EZR Mold Cleaner removes wax, grease, and other contaminants from rotational mold surfaces. It works well to prepare the surface of new or reconditioned molds in preparation for the application of primers or release agents.

SKU	Size	Net weight (lb.)
058602	Gallon	6.3
058604	5 Gallon	31.3
058606	55 Gallon	343.8

Chemtrend Mono-Coat RM-1910RP

Mono-Coat RM-1910RP is formulated for priming and sealing rotational molds made of steel, stainless steel, and aluminum. It will increase the gloss of the mold surface and provide an excellent surface for the release agent. It has no release properties and must be used with the appropriate Mono-Coat release.

SKU	Size	Net weight (lb.)
058572	Gallon	7
058574	5 Gallon	35.2

MOLD RELEASE AGENTS

Chemtrend Mono-Coat RM-1930RB

Mono-Coat RM-1930RB is a solvent based semi-permanent release system for minimal transfer of the release agent to the finished part. Additional features include high temperature stability, good abrasion resistance, and no build-up on the mold surface.

SKU	Size	Net weight (lb.)
058598	Gallon	6.6
058599	5 Gallon	32.8

Chemtrend Mono-Coat RM-1921WRB

Mono-Coat RM-1921WRB is a water-based semi-permanent release agent where tight dimensional control and high gloss are required. Recommended for all type of polyethylene.

SKU	Size	Net weight (lb.)
058582	Gallon	8.3
058584	5 Gallon	41.7
058586	55 Gallon	458.7

Chemlease Mono-Coat RM1964RF

Mono-Coat RM-1964RF is a solvent-based semi-permanent release agent especially formulated for molding operations when high degree of slip is the primary requirement. Mono-Coat RM-1964RF also offers low transfer of release agent to parts, high-temperature stability, and abrasive resistance.

SKU	Size	Net weight (lb.)
058670	Gallon	6.5

Chemtrend Mono-Coat RM-1904WRB

Mono-Coat RM-1904WRB is a water-based semi-permanent release for rotational molds, designed to prevent pre-release from stainless steel and aluminum. It is ideal for all grades of polyethylene, and provides multiple releases with no transfer to the molded part.

SKU	Size	Net weight (lb.)
058512	Gallon	8.3
058514	5 Gallon	41.7
058516	55 Gallon	458.5

Chemtrend Mono-Coat RM-1903WRB

Mono-Coat RM-1903WRB is a water-based semi-permanent release agent that is excellent for rotational molding of all grades of polyethylene. Suitable for aluminum, steel, and particularly effective on stainless steel, this product provides high temperature stability with no transfer to the molded part.

SKU	Size	Net weight (lb.)
058502	Gallon	8.3
058504	5 Gallon	41.7
058506	55 Gallon	458.5

Chemtrend Mono-Coat RM-1909RB

Mono-Coat RM-1909RB is a solvent-based semi-permanent release agent for molding operations where high temperature and abrasion resistance is required. It is excellent for all types of polyethylene as well as rubber.

SKU	Size	Net weight (lb.)
058562	Gallon	6.5
058564	5 Gallon	32.6
058566	55 Gallon	358.3

Chemlease Mono-Coat E255

This system provides a non-transferring release film for effective use in the rotational molding process. E255 features a high degree of slip and high temperature stability. May be applied to cool or hot mold surfaces ambient to 370°F.

SKU	Size	Net weight (lb.)
058444	Gallon	6.4
058446	5 Gallon	32.2

Chemtrend Mono-Coat RM-1905RF

Mono-Coat RM-1905RF is a semi-permanent release agent specifically designed for use on flanges and vent-tubes in all types of rotational molds. This product has 100% solids and has excellent thermal stability.

SKU	Size	Net weight (lb.)
058522	Gallon	8.1
058524	5 Gallon	40.5
058526	55 Gallon	445.5

Chemtrend Flow Promoter

Chemtrend Flow Promoter is for rotational mold surfaces that have been properly released using Chemtrend Mono-Coat Release Agents. It promotes resin flow and helps prevent bridging and pin holes in parts that have complex contours and fine detail.

SKU	Size	Net weight (lb.)
058601	Aerosol Can	0.6

MIXING CUPS & PADDLES

Paper Cups

These paper cups are ideal for mixing all types of tooling and reproduction plastics. The lined paper cups are specially coated to prevent resin absorption. The larger paper cups are untreated. Cups sold individually.

SKU	Description	Cups/package	Cups/Case
054037	Lined Paper Cups (16 oz.)	50	500
054042	Lined Paper Cups (32 oz.)	25	500
054048	Untreated Paper Cups (83 oz.)	25	100
054050	Untreated Paper Cups (165 oz.)	25	100

Plain Plastic Cups

These cups are ideal for mixing all types of tooling and reproduction plastics. They are made of high-density polyethylene (HDPE), white in color, and unmarked. Cups sold individually.

SKU	Size	Cups/case
054031	12 oz. Cups	500
054036	16 oz. Cups	500
054041	32 oz. Cups	500
054047	64 oz. Cups	200
054049	85 oz. Cups	200
054055	128 oz. Cups	120
054051	166 oz. Cups	120

Graduated Plastic Cups

These convenient plastic cups are also made of high density polyethylene (HDPE). However, these cups are translucent and have both milliliter and ounce graduations on the container to aid in mixing. Cups sold individually.

SKU	Size	Cups/case
054025	24 oz.	100
054026	48 oz.	50

Wood Mixing Paddles

Wood mixing paddles for both gallon and 5 gallon containers. Both paddles are ideal for mixing paint, urethanes, epoxies, or any other liquid. Sold by the box.

SKU	Description	Thickness	Width	Length	Qty/box
054524	Paddles for 1 Gallon	1/8"	1 1/8"	14"	50
054521	Paddles for 1 Gallon	1/8"	1 1/8"	14"	500
054525	Paddles for 5 Gallon	7/32"	1 3/8"	21"	250

Tongue Depressors

These polished hardwood depressors are excellent for mixing small quantities of tooling plastics and repair materials.

SKU	Width	Length	Qty/box
054520	3/4"	6"	500

GLOVES & PROTECTIVE WEAR

Vinyl Gloves

Vinyl gloves are an economical choice for activities that do not require the highest degree of tactile precision. Vinyl does not offer as much dexterity as nitrile or latex and tends to tear more easily, but offers the best value for low-risk applications. Our vinyl gloves feature rolled cuffs to provide greater tear resistance and easy gripping.

SKU	Description	Pairs/box
054060	5 mil (Large)	50
054061	5 mil (X-Large)	50

Latex Gloves

Latex gloves provide superior dexterity and barrier protection. However, because latex is a natural substance, the protein in latex gloves can cause an allergic reaction and irritation in some people. Our latex gloves feature rolled cuffs to provide greater tear resistance and easy gripping.

SKU	Description	Pairs/box
054064	With Powder – 8 mil (Large)	100
054063	Latex Gloves – 8 mil (X-Large)	100
054066	Powder-Free – 7.5 mil (Large)	50
054068	Powder-Free – 7.5 mil (X-Large)	50

Nitrile Gloves

Nitrile gloves are made of synthetic latex. They contain no latex proteins and are three times more puncture resistant than latex rubber. More importantly, they offer superior resistance to many types of chemicals.

SKU	Description	Pairs/box
054070	7 mil (Large)	50
054069	7 mil (X-Large)	50

3M Particulate Respirators (Mask)

Because of their low-profile shape, eye glasses, goggles and face shields can be easily worn without interference. They are excellent to wear when operating sanders and other dust creating equipment. These masks do not protect the user from toxic dusts, spray paints, or organic vapor.

SKU	Mfg. #	Qty/box
054526	8210	20



Tyvek® Sleeves

These 18" long sleeves are designed to protect workers' arms from resin contact. Tyvek is a durable yet pliable fabric that resists tears, snags, and punctures, and its slick surface prevents particle entrapment. These sleeves are purchased in pairs. (SKU #418002)

Tyvek® Apron

These comfortable, reusable aprons form a virtually impermeable barrier against dirt, grease, grime, sprays, chemicals, and moisture. Like the Tyvek sleeves, these aprons are made of a durable yet pliable fabric that resists tears, snags, and punctures. Its slick surface prevents particle entrapment. Even though these aprons are disposable, they can often be used over and over (depending on work conditions). These 28" x 36" aprons feature serged seams and long ties for a comfortable fit. (SKU #418001)



Freeman Heavy-Duty Shop Apron

This very heavyweight cotton apron is tough enough for shop use. Features include two chest pockets, two hip pockets, metal ferrule tie holes and heavy-duty stitching. (SKU #054065)



APPLICATION TOOLS

BRUSHES

White-Bristle Throwing Brush

This low-cost expendable brush is ideal for epoxy tooling work and one-time use.

The unpainted wood handle has pure bristles firmly fastened in the ferrule. Width: 1/2" to 3".



Ox Hair Brush

This brush features very fine and soft ox hair bristles, a chiseled edge, nicked ferrule, and a walnut finish handle. Ideal for applying shellac and other coatings. Width: 1/4" or 1/2".

Acid Brush

Used for applying surface coats, this economical, throwaway-type brush is good for brushing into small areas. It features a long metal handle and 1/2" chiseled edge horsehair bristle. Width: 1/2".

Nylon Throwing Brush

Low cost and expendable, this brush is excellent for applying epoxy surface coats. It features a plastic handle with nylon bristles firmly fastened in the ferrule. Width: 1/2" to 3".

Economy Flat-Bristle Brush

This brush features pure white china bristles, double thick with a chiseled edge. Bristles are secured with a nicked ferrule plastic handle. Width: 1/2" to 3". 12 per box.

Please see our website, www.freemanSupply.com, for complete details and part numbers.

Molder's Brush

The Molder's Brush features black horsehair staple set with a solid hardwood block.

It is ideal for general foundry applications. Trim length: 2 7/8"; Block size: 9" x 1 1/8".



Aluminum Paint Pot

- Size: 1 or 2 quart
- Brush sold separately

Make applying materials by brush easier and more efficient with the



Freeman exclusive Aluminum Paint Pot.

This aluminum domed pot enables you to hang your brush while keeping the bristles in the paint. The dome cover seals the container, enclosing both paint and brush, preventing drying, evaporation, and thickening of the contents. Available in one or two quart sizes.

SKU	Size	Net weight (lb.)
046667	1 Quart	0.5
046668	2 Quart	1

ROLLERS

Bodi Standard Rollers

- Plastic or Aluminum
- Diameter: 3/8" to 1"
- Length: 3" or 6"

These strong, long-life rollers are made with deep grooves and thin fins, providing excellent air release. The patented handle is specially designed for long hours of use and accepts extension handles for hard-to-reach jobs.

The non-corrosive 1/4" frames clean easily in solvent.

Bodi Quik Change Rollers

- Plastic or Aluminum
- Diameter: 1/2" to 1"
- Length: 2" to 6"

Easily clean these rollers with non-corrosive 1/4" steel frames, especially in acetone replacement systems. Just push on and pull off the head for easy removal. Available as a complete rollerhead or separate replacement heads.

Bodi Bristle Rollers (Quik Change)

- Head also available separately
- Diameter: 3/4" or 1"
- Length: 3" or 6"

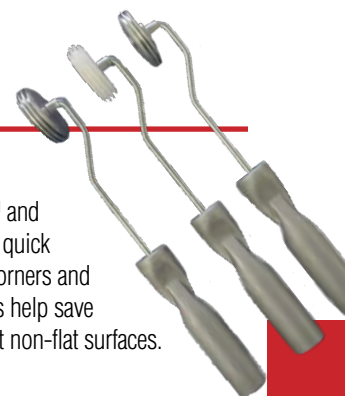
Pure Bristle Rollers are spirally wound to produce strong laminations and roll out glass smoothly.



Bodi Corner Rollers

- Plastic or Aluminum
- Diameter: 2"
- Roller Head Width: 3/16" to 5/8"

High quality Delrin™ and aluminum rollers for quick and easy rolling of corners and ridges. Corner rollers help save time when rolling out non-flat surfaces.



Bodi Mini Rollers

- Aluminum
- Diameter: 1/4"
- Length: 1" to 3"

For applications requiring an extra small roller, these are high quality 1/4" diameter aluminum rollers on 1/8" small steel frames mounted in aluminum handles. Disassembles for easy cleaning.

Bodi Paddle Wheel Rollers (Quik Change)

- Head also available separately
- Diameter: 3/4"
- Length: 3" or 6"

With the thinnest fins in the business for excellent air release, these rollers have smooth horizontal (regular) fins. All heads are aluminum.

Please see our website, www.freemanSupply.com, for complete details, part numbers, and additional rollers.

CLEAN-UP SUPPLIES

MVP Waterless Hand Cleaner

MVP is a waterless hand cleaner that removes grease, resins, oils, adhesives, and tar. Does not contain harsh abrasives or irritating solvents. Contains lanolin to soothe and smooth skin. MVP gallon size has a convenient pump (sold separately) for easy dispensing.

SKU	Description	Size
054209	MVP Waterless Hand Cleaner	Quart
054205	MVP Waterless Hand Cleaner	Gallon
054206	Pump Only for Gallon Unit	



WypAll Shop Rags

These general purpose shop rags are made of 100% cotton and used for clean-up, cleaning mold surfaces from excess release, and applying Chemlease mold cleaners, primers, and semi-permanent release agents. There are 100 rags in each handy pop-up dispenser. **(SKU #418010)**



Safety Plunger Can

The Safety Plunger Can is ideal for dispensing acetone (page 122) onto a shop rag for mold cleaning. To dispense, place shop rag on dispenser and depress the plunger. Sold in quart cans. **(SKU #418005)**



MISCELLANEOUS ACCESSORIES



Kraft Paper

A high-quality, 40 lb. plain Kraft paper. Also available with coating on one side on special order basis.

SKU	Description	Width	Length
054078	Kraft Paper - Plain	36"	900'

Masking & Double-Face Tapes

High-quality masking and double-face tape for various shop uses.

SKU	Description	Width (mm)	Length (yd.)	Rolls/box
035240	Masking Tape	24	60	36
035250	Masking Tape	48	60	24
035210	Double Face Tape	18	36	48
035215	Double Face Tape	24	36	36
035220	Double Face Tape	36	36	24
035225	Double Face Tape	48	36	24

DEMOLDING WEDGES

These high-impact wedges assist in demolding applications and are color coded for easy identification.



GREEN - "Super Tuff": Made of extremely high impact nylon. High-quality wedge that maintains a sharp insertion edge five times longer than standard wedges to ensure that there is no damage to mold edges.

WHITE - "Econo": Made of high grade plastic to resist breakage. Lower cost wedge. Has a textured finish.

TAN - "Flex": Made of flexible plastic for inserting into compound curved mold edges.

SKU	Description	Thickness	Width	Length	Color
300380	Super Tuff Nylon Wedge	1/2"	1 1/2"	4"	Green
300386	Super Tuff Nylon Wedge	5/8"	2 1/8"	6"	Green
300384	Econo Wedge	1/2"	1 1/2"	4"	White
300390	Econo Wedge	5/8"	2 1/8"	6"	White
300394	Econo Wedge	1"	3 1/8"	10"	White
300382	Flex Wedge	1/2"	1 1/2"	4"	Tan
300388	Flex Wedge	5/8"	2 1/8"	6"	Tan
300392	Flex Wedge	1"	3 1/8"	10"	Tan

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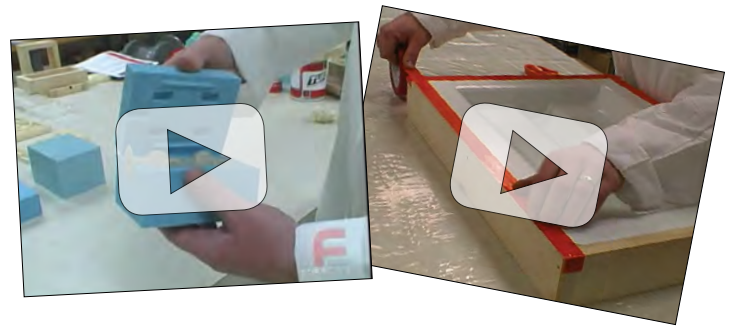
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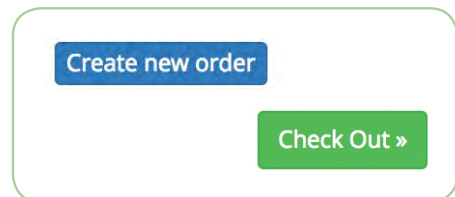


Description	Unit Price	Total
Repro 83 Blue Gal Unit	\$82.62	\$82.62
Sub Total		\$82.62

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