

Proper surface preparation will contribute significantly to the longevity of Ace Paint products. Follow these general guidelines for best results.

CLEAN:

Paint will not adhere to dirt, stains, soap or grease. It is important to remove all residue from the surface by washing and rinsing before painting. Tri-Sodium Phosphate (TSP), TSP 90 or similar, is a good choice for this project.

Use a sponge and mild solution of water and TSP (or similar) to wash the wall from the bottom up; this will prevent streaking.



Bare or previously painted surfaces **must** be free of grease, wax, oil, soap film dust and dirt. Painting over grease, wax, oil and soap film will cause poor drying and curing of the paint film, and poor adhesion. Dull glossy finishes by sanding lightly.

Grease, oil, soap film and heavy soil which build up around stoves, sinks, light switches, (etc.) and on woodwork, may be removed by scrubbing with detergent and water. Be sure that all grease, wax, oil and soap film is removed and that the surface is **thoroughly rinsed**.

Exterior surfaces which still appear to be dirty after scrubbing could actually be areas with mildew. These areas should be scrubbed with a solution of 1 part liquid bleach to 3 parts water followed by a thorough hose rinse. Protect hands, face and clothes while working with this bleach solution. If mildew is not removed before painting, it will grow again on the new paint film.

RINSE:

Be sure to rinse well with clear, cold water to remove all soap film. Paint will not stick to this nearly invisible film. Be sure to rinse from the top down to carry away all of the soap film.

All interior and exterior surfaces must be thoroughly rinsed after being cleaned with detergent or ACE siding cleaner.



DULL:

If walls are greasy, as kitchen walls tend to be, or if they are soapy, as bathroom walls often are, wash them before sanding to prevent grinding the grease or soap film into the surface. In most other rooms, you can sand the walls before washing them. This is especially important if you already have semi-gloss or gloss paint on the wall. Use a "medium" grade of sandpaper to dull the surface. It is not necessary to sand off the old paint. All you need to do is scuff the surface enough to allow the new paint to adhere well. Then wipe with a damp cloth or sponge to remove dusting created by sanding. Ultimately, the walls **must be dull and clean**, and then rinsed and allowed to dry before attempting to paint.

LEAD PAINT SANDING PRECAUTION: Products manufactured by the Ace Hardware Corporation, Paint Division do not contain lead. This product complies with Federal Law restricting the presence of lead in consumer coatings. **Warning:** Removal of old paint by sanding, scraping or other means may generate dust or fumes which contain lead. EXPOSURE TO LEAD DUST OR FUMES MAY CAUSE ADVERSE HEALTH EFFECTS, ESPECIALLY IN CHILDREN OR PREGNANT WOMEN. Controlling exposure to lead or other hazardous substances, requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and clean-up. For additional information, contact the USEPA/Lead Information Hotline at 1-800-424-LEAD.

DRY:

Interior and exterior surfaces must be thoroughly dry before painting.

SMOOTH:

Surface irregularities will be more pronounced after painting, especially if you are using a semi-gloss or gloss paint. For best results, make sure that all areas that have been repaired by patching are sanded smooth. Feather-sand the edges of patched areas to blend in these areas with the surrounding surface. All areas sanded should then be wiped with a damp cloth or sponge to remove any dusting created by sanding. It is also important to remember to spot prime these areas before painting.

SOUND:

All surface areas must be sound. Remove loose plaster, wood, and/or flaking paint with a scraper or putty knife and patch the area and any other surface cracks. You may want to caulk any seams or other large gaps. Be sure to use a paintable caulk. No paint film will rejuvenate decayed or rotted surfaces. Such areas must be repaired and/or replaced with new materials before painting.

For interior walls, use a quality spackling compound and allow to dry thoroughly. For new surfaces sand until smooth and spot prime all bare areas as directed with the recommended primer.

For exterior walls, use the appropriate patching compound for the surface. One coat of quality primer will seal the patched area better than three or more coats of regular paint. If you are patching wood, trim, doors, etc. use a quality wood patching material.



Preparation for painting interior walls, ceilings and woodwork is relatively easy and the few paint failures which occur on these surfaces are generally attributable to failure to remove grease and wax and to dull glossy surfaces. If the following preparation instructions are followed, the incidence of interior wall paint failure is dramatically reduced.

GENERAL INTERIOR CLEANING PREPARATION

Bare or previously painted surfaces must be free of grease, wax, oil, soap film, dust and dirt. Painting over these substances will cause poor drying and curing of the paint film as well as poor adhesion. Dull glossy surfaces by sanding lightly. Grease, oil, soap film and heavy soil which build up around stoves, sinks and light switches may be removed by scrubbing with detergent and water. Be sure that all substances are removed and that the surface is thoroughly rinsed.

PREPARING BARE, UNPAINTED INTERIOR SURFACES

PLASTER:

New plaster must be allowed to cure thoroughly for at least 30 to 90 days before painting. The room should be well ventilated while drying and in cold, damp weather, rooms must be heated. Bare plaster, new or old, should be dry, cured and hard.

Cracks and holes in plaster walls require skillful patching to insure a smooth, professional finish. Deep cracks must be cut out and patched before primer and paint are applied.

The correct preparation of a deep crack or hole includes cutting away loose or bulging plaster from the edges and then undercutting it so that a cross section looks like an inverted "V". If the bottom of the crack or hole is wider than the top, patching material will be keyed to the surface and will not fall out. After undercutting, remove the dust out of the opening, then soak the sides and bottom with water. A pressure spraying device is the most effective way of wetting the opening.

Unless the edges are wet with water before patching, the dry plaster will absorb excessive water from the patch and it will ultimately crumble. Patching materials are abundant but vary in composition.

After the patch dries, a minimum of 15 hours should be allowed for drying, then sanded smooth, and dusted completely. Patches invariably absorb more paint than the surrounding areas, especially if the wall has been previously painted. When a patched wall is to receive a two coat repaint job, spot prime the patch, then apply primer over the entire wall and finish with the appropriate topcoats.

Suction spots are areas in plaster walls that soak up the primer to a greater extent than the surrounding surface. Such spots, which can be detected by a difference in the luster of the dried primer, may cause a variance in the luster of the finish coats. Suction spots should be given a second coat of primer before the finished coats are applied.

Skim-coat plaster is a special kind of plaster that is mixed at the point of manufacture, as differentiated from thin coats of ordinary plaster mixed on the job. Skim-coat plaster is applied in very thin coats to the face of special gypsum wallboard sheets. It is usually specified for use in institutions such as schools, hospitals, laboratories, etc. where severe usage is encountered.

When properly applied, skim-coat plaster cures to an extremely hard, non-porous surface. When not properly applied or thoroughly cured, porous areas or hot spots result. Use Ace Royal Touch Alkyd Enamel Undercoater (272A101) to insure satisfactory results when finishing cured skim-coat plaster surfaces. It is always essential that the plaster be completely dry before priming and have aged at least 90 days.

DRYWALL:

Drywall and plasterboards of many types, made from gypsum, paper, pulp and various other compositions are used extensively in new construction. Be sure all nail heads are set below the surface and spackled over. Joints should be taped and covered with suitable drywall joint compound. Sand the spackled nail heads and joint compound smooth and dust well before priming. Prime drywall and wallboard with Ace Royal Touch Latex PVA Drywall Primer (214A100).

Reprocessed paper used in newer recycled wallboards may absorb non uniformly and/or bleed water soluble stains. These recycled wallboards may require Ace Stain Halt Latex Primer (215A100) or Ace Royal Touch Alkyd Enamel Undercoater (272A101).

BARE WOOD:

Lumber stored on the premises in a dry environment will stabilize to prevent shrinking and warping. Surfaces should be sanded smooth following the grain and dusted before applying finishing coats. Scuff sand glossy finishes between coats. You would follow this procedure when applying a clear finish. If painting, prime with either Ace Royal Touch Latex Enamel Undercoater (101A103) or Ace Royal Touch Alkyd Enamel Undercoater (272A101).

**BARE METAL:**

Remove all traces of rust with steel wool. Remove all oil, grease, dirt and other foreign material. Wipe clean with a clean cloth. Prime ferrous metals such as iron and steel with Ace Rust Stop Primer (225A140/141 or 190A140/141). Prime non-ferrous metals such as galvanized, aluminum, copper and brass with Ace Galvanized & Aluminum Primer (155A100).

Hand and power tool cleaning are methods of removing loose rust and loose mill scale and other loose contaminants from the surface. Cleaning surfaces with solvent will not normally remove rust or mill scale. The cleaning rags and solvent must be changed frequently to prevent spreading the oil or grease over adjacent areas during the cleaning process. Be certain to ventilate the area during cleaning and dispose of rags properly.

PREPARING PREVIOUSLY PAINTED INTERIOR SURFACES

Dull glossy finishes by sanding lightly. Wipe with a damp cloth or sponge to remove loose dust. Remove all loose paint and repair or patch damaged areas and feather sand to blend in these areas with the rest of the surface. Clean and rinse the surface. Prime all bare areas followed by a spot coat of the finish coat paint to assure a more uniform appearance of the overall finish coat.



Before starting to prepare the surface, it is extremely important that sources of moisture entry into the surface are eliminated. Be sure that roof overhangs, gutters and downspouts are in good working order to carry water away from the house and that they are kept that way. If moisture entry from internal sources is suspected, these sources must be found and eliminated. If necessary, attic louvers, moisture vents or exhaust fans should be installed to allow the escape of internal moisture.

GENERAL EXTERIOR CLEANING PREPARATION

Bare or previously painted surfaces must be clean. Dust, dirt, grease, oil and other surface residue must be removed before painting. The little extra time that it takes to clean and prepare the surface properly will produce a better looking, longer lasting finish and will save time and money in the long run.

Surface may be cleaned by scrubbing with a long handled scrub brush using detergent and water (or an appropriate siding cleaner). Scrub the siding from the bottom up to prevent streaking. Be sure to scrub under the eaves to remove residue. Rinse thoroughly with a garden hose immediately after a section is scrubbed. This scrubbing will also insure the removal of chalk which is necessary to assure good adhesion.

Areas which still appear to be dirty after scrubbing could actually be areas of mildew. These areas should be scrubbed with a solution of 1 part liquid bleach to 3 parts water, allowing the solution to sit 20 - 30 minutes, followed by a thorough hose rinse. Protect hands and eyes with rubber gloves and splash goggles and plants and shrubbery with plastic drop cloths, while working with this bleach solution. If mildew is not removed before painting, it will grow again on the new paint film.

PREPARING BARE, UNPAINTED EXTERIOR SURFACES

BARE WOOD:

Excessive deposits of sap from knots on other areas of the wood should be removed and all such areas should be sealed with a thin coat of exterior oil primer before a full coat of primer is applied.

Countersink nails and spot prime the nail heads and holes with Ace Royal Shield Oil-Based Primer (218A100). When primer has thoroughly dried, fill nail holes with putty. Ferrous nails should be primed with Ace Rust Stop Primer (225A140/141 or 190A140/141).



Caulk all building joints thoroughly to prevent the entry of external moisture. Be sure that all openings around windows, door frames, sills and all other joints and cracks are well caulked. These openings should be primed with oil primer before the caulk is applied.

Prime with Ace Royal Shield Oil-Based Primer (218A100) or Ace Royal Shield Latex Primer (125A100). Primer must be finish coated within 30 days. If not finish coated within 30 days, the primer will collect dirt or become too hard to assure good adhesion of the finish coat and must therefore be reprimed with Ace Royal Shield Oil-Based Primer (218A100). For the same reason, factory primed siding, other than cement board, should be reprimed with Ace Royal Shield Oil-Based Primer (218A100).

Do not paint immediately after or prior to a rain or during foggy weather. The temperature should be above 50° within 4 hours of painting.

Do not dab paint into the space between overlapping boards and seal the wall. The space is necessary to ventilate the wall and the structure.

BARE MASONRY:

New concrete should weather 90 days before painting. Wash surfaces with TSP (or equivalent) and water to remove dirt, grease, oil and other contaminants.

Vertical Surfaces: Remove any efflorescent deposits by scrubbing with a stiff brush. If surface is chalky, it must be thoroughly scrubbed and rinsed to remove all chalk. If surface remains soft and powdery after scrubbing, it should be primed with Ace Royal Shield Oil-Based Primer (218A100) before painting. Ace exterior latex house paints are formulated for use on bare, chalk-free masonry, such as concrete block, an initial coat of Ace Industrial Maintenance Latex Block Filler (293A100) should be applied. If no primer is used, 2 coats of latex house paint are recommended.

Horizontal Surfaces: Unpainted concrete should be etched with a solution of muriatic acid and water and rinsed thoroughly. Follow label directions and precautions when working with muriatic acid. Allow 24 hours dry time before applying topcoat. Topcoat with Ace Royal latex or solvent-based floor finishes.

ASBESTOS SIDING:

We recommend using a contractor when this siding is involved.

BRICK:

Thoroughly clean brick that has aged or weathered one year before painting. Porous brick should be primed with Ace Royal Shield Oil-Based Primer before topcoating (218A100).

STUCCO:

New stucco surfaces should be clean and have aged 30 days under normal drying conditions before painting with latex. Unpainted stucco surfaces that have weathered several years should be primed with Ace Royal Shield Oil-Based Primer (218A100) before topcoating with latex.

BARE METAL:

Remove dirt, grease and oil by wiping with a clean cloth, saturated with paint thinner. Since paint thinner is flammable and the vapors can be harmful, use and dispose of it with caution.

Remove all other contaminants such as tar, paint, mill scale and rust by blast or power tool cleaning. Water blast cleaning would require water pressures greater than 2,000 P.S.I.

Although Ace latex house paints may be used without priming on bare, weathered galvanized metal, a first coat of Ace Galvanized and Aluminum Primer (155A100) is recommended. Prime other non-ferrous metals such as aluminum, copper and brass with Ace Galvanized and Aluminum Primer (155A100). Prime ferrous metals such as iron and steel with Ace Rust Stop Primer (225A140/141 or 190A141/141).

PREPARING PREVIOUSLY PAINTED EXTERIOR SURFACES

Remove all loose paint and sand thoroughly to level the old paint film with the bare exposed surface. Repair or patch damaged areas and sand to blend in these areas with the rest of the surface. Remove any rust from nailheads or replace them and countersink, spot prime and putty before topcoating. Remove loose caulking and caulk all open joints and cracks. Prime unpainted joints and cracks with Ace Royal Shield Oil-Base Primer (218A100). Clean surface as directed above to remove dust, dirt, grease, oil, chalk, mildew and other surface residue.



Spot prime all bare areas, including weathered, worn, patched or repaired areas, as directed above, followed by a spot coat of the finish coat paint to assure a more uniform appearance of the overall finish coat.

Glossy surfaces should be scuff sanded or cleaned with an abrasive cleanser to dull the surface before painting.

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LATEX HOUSE PAINT AND COLD WEATHER PAINTING

A few words of caution are appropriate regarding cold weather and painting with latex house paint. Cold temperatures retard the drying of latex house paints and can prevent the proper curing, or coalescence of the paint film.

It is generally agreed in the paint industry that latex house paint should not be applied at temperatures below 50°F. This applies to both the temperature of the air, and the surface being painted. It is also important to quit painting early enough in the day to allow the film to dry before the temperature drops below 50°F.

Deep colors are particularly sensitive in cold weather. The large amounts of colorant necessary to make deep colors also tends to slow down the drying or curing rate of the paint film. A rare condition called "surfactant leaching" can occur when the uncured paint film is exposed to the adverse conditions of cold weather and high humidity or dew.

This condition can appear as ripples or sag marks or spots of syrupy or brownish colored material on the surface of the paint film. It is brought about by the presence of high humidity, dew or moisture coming in contact with the freshly painted or uncured latex paint film. This residue, which is leached to the surface by moisture, consists of water soluble ingredients present in all latex house paints.

Though not as serious as it may sound, it is obviously quite unsightly and upsetting to customers. The remedy for this condition is to wash off the residue with warm soapy water and a soft sponge while it is still fresh and soft. If allowed to harden on the house or dry by the sun, it may be necessary to soak the stains for about 1/2 hour to soften them before removing with a soft sponge. Excessive scrubbing or using a cloth to remove these surface deposits may remove the last coat of paint. If the stains cannot be removed by washing, the affected areas can be repainted to restore a uniform appearance. Painting should be done on a day when dew probably will not occur that evening, or leaching may re-occur.

Of course, the best remedy is the prevention of problems by using care when painting in cold weather.

SOLVENT-BASED HOUSE PAINT AND COLD WEATHER PAINTING

Solvent paints being applied at temperatures just above 50°F can get cold. The paint will get thicker and be tougher to apply and spread at the recommended rate. This will often result in too thick a film being applied which will dry with a wrinkled surface. If painting with solvent paint in these lower temperatures is necessary, the paint should be warmed to room temperature when it starts to get thick.

Another problem, called "Dew Flattening" may appear when solvent paint is applied and dew forms on the freshly painted surface.

The dew droplets cause many depressions in the surface of the coating, scattering the reflected light and giving a visual image of a flat spot. The paint will weather normally but the flat spots will show until the overall gloss is reduced from weathering.

Homes sided with aluminum or steel siding can show this problem more than wooden homes because the outer metal skin on the siding gets cold faster than wood. This causes oil paints to dry slower and condense moisture faster than if it were applied to a warm surface. Dew flattening shows up on wood sided homes as flat spots between the studs which retain heat and show up as glossy, vertical stripes on the affected walls.