

# [ TECHNICAL BULLETIN ]

ASTEC SEALERS, PRIMERS, AND UNDERCOATS

STAIN BLOCKING, HIGHLY ADHESIVE TANNIN RESISTANT PRIMER/UNDERCOAT.

## Oil Based Undercoat



### PRODUCT TYPE

Synthetic Alkyd Resin.

### DESCRIPTION

**Oil Based Undercoat** is a quick dry, high solids maintenance primer/undercoat that provides a well adhered stain blocking base coat for most acrylic and enamel top coats on interior or exterior surfaces. Oil Based Undercoat is manufactured as a resin rich, heavy bodied concentrate that enables long-term storage of the product without the hard settle that is commonly associated with similar oil based primers and undercoats. The thixotropic performance of the product provides solid in can hold up of the high level of opacifying pigments during storage. Once the product is stirred well it flows to a smooth creamy liquid that is ready for use.

#### HIGH OPACITY

Oil Based Undercoat is a premium quick dry oil based primer/undercoat that offers dry hiding power far in excess of many commercially available oil based primer/undercoats. It's strong dry film hide is achieved with specially surface treated opacifiers used at maximum concentrations during manufacture. The product's outstanding opacity, allows for single coat applications to be achieved on many substrates substantially reducing both material and labour costs.

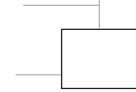
One coat should leave the surface in a uniform white colour that is ready for top-coat application. New timber may require light sanding where slight grain lifting can occur. Unlike many



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#### DESCRIPTION



##### HIGH OPACITY

products of this nature the use of Oil Based Undercoat will keep grain lifting to a minimum as a result of the quick dry resin rich, high solids formulation and the absence of many low cost solvents that can cause timber to swell.

##### HIGH SOLIDS

Many commercially available oil based primer/undercoats are only in the range of 45-50% solids by weight, therefore up to 50-55% of the wet film is lost through evaporation of low cost solvents. To achieve a durable film with these materials usually requires greater volumes of product and obviously incurs higher labour costs for the additional coats required. High solids is achieved by either extending the high cost resins with cheap extenders or by increasing the products resin solids. Astec Oil Based Undercoat is 67.89% solid by weight and has minimal low cost fillers to achieve it's high solids. Although there is a cost penalty to the manufacturer to achieve high solids undercoats without the use of the normal low cost fillers, the result is a product that leaves a high dry film deposit that is resin rich and therefore extremely extremely solid and resistant to stain bleed. In most cases Oil Based Undercoat requires up to 30% less wet film application which saves on both labour and product costs.

#### STAIN BLOCKING

As a result of acrylic technology, most primer or undercoat requirements can be satisfied with by the use of acrylic primer/undercoats with some exceptions, for example over substrates that contain Tannin such as Oregon and Cedar. Tannin will bleed through an acrylic primer and its top-coat causing unsightly dark brown stains, unless the top-coat is a dark colour where bleed through will be seen as slight, if at all.

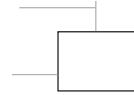
Bleed through can also occur when an acrylic membrane is applied over an existing bitumen modified waterproof membrane system. Dependent on its age and nature, varying levels of bitumen stained solvent can bleed through an acrylic membrane and once again if the acrylic membrane is light in colour unsightly black stains will occur intermittently across the surface of the acrylic membrane film.



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#### DESCRIPTION

##### STAIN BLOCKING

Astec Oil Based Undercoat will eliminate unsightly bleed through of Tannin and bitumen solvents that will stain a light coloured acrylic top-coat. The product is formulated with specialty additives that ensure the product is as chemically resistant as possible to film bleed through. In addition, through extensive research and development work into resin analysis for undercoats of this nature, the cured film of Astec Oil Based Undercoat is 98.5% pore free which further enhances its performance as a stain blocking primer/undercoat.

##### DESIGNED USE

Oil Based Undercoat is manufactured principally for use in the maintenance, restoration and new construction painting industries. Typical applications include steel balustrading and hand rails, timber doors, window frames, exterior facias and interior skirtings or any metal, timber, concrete or fibro surface requiring a primer/undercoat that is resistant to Tannin or solvent bleed through that can not be successfully provided by water based acrylic primer/undercoats.

Oil Based Undercoat can be used as a stand alone product but in many cases the product will require sealers or primers beneath it to provide correct adhesion and or correct substrate preparation. As an example Astec Rustraint should be applied on a corroded metal surface prior to the application of Oil Based Undercoat.

This primer concentrate can be cut by up to 40% with Astec All Purpose Thinners for spray applications or cut with Mineral Turpentine to slow down the drying time for brushing applications. Any thinned primer should be stored in an appropriate separate container and not poured back into the un-cut concentrate as once the material is thinned it can allow the normal settling of the pigment.

##### PREPARATION

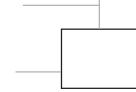
All surfaces must be clean dry and free of contaminants. Remove dirt or dust and grease with a household detergent. Scrape off any loose or flaking paint on existing painted surfaces then sand any remaining paint to a flat finish. Any existing well adhered glossy paints that can not be sanded or have the gloss removed from the surface should be cleaned



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#### PREPARATION



down. For best results, any existing paint that exhibits a complete lack of adhesion should be removed entirely, except on asbestos sheeting.

*Asbestos Sheeting:* Wipe the surface down with a damp cloth to remove any dust. Where it is not possible to completely remove all chalk or contaminants from the surface apply Astec Rivett, which will bind the surface to a hard finish prior to painting.

*Rusted surfaces or nail heads:* Treat with Astec Rus-traint, fill any imperfections with a suitable filler and spot prime or seal any bare surfaces with the appropriate Astec primer as detailed in the following sections.

#### APPLICATION

The best results will be obtained by brush, spray, or roller then brush 'tip off' application methods as follows:

1. For spray applications Oil Based Undercoat can be thinned between 10% and 40% dependant upon the wet film thickness required. Conventional air or airless spray equipment is suitable for Oil Based undercoat application, when using airless spray equipment use a 515 to 518 tip.
2. For brush application Oil Based Undercoat should be used straight from the can. However, Mineral Turpentine can be added when evaporation from an open can during use causes an increase in viscosity. Small amounts should be stirred in carefully so as not to over thin the product.

#### NEW TIMBER

Treat all nails with Astec Rus-traint allow to dry then fill all nail holes with a suitable wood filler. For optimum adhesion sand all dressed timber. On tannin rich timbers, such as Oregon and Cedar, prime with Astec Oil Based Primer to prevent staining of light tinted colours. Sand smooth if necessary, then apply two coats of suitable U.V stable top-coat.

#### WINDOW PAINTING

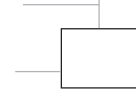
Use sparingly on all contact areas, open and close windows within 30 minutes and thereafter at 4 hour intervals over the following 24 hours.



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#### APPLICATION



##### NEW STEEL AND WROUGHT IRON

Remove any excess rust with scraper, wire brush or by sanding. Wipe clean and remove any grease with Astec All Purpose Thinners. Apply Astec Rus-traint in accordance with the application details on the can. Apply Astec Oil Based Undercoat then apply two coats of suitable U.V stable top-coat.

##### BRICK AND MASONRY

No sealer is required on surfaces that are in a sound condition ie. not weathered to a point where the surface is friable or continues to powder even after being washed down. If the surface is unsound apply Astec Rivett which will bind a soft wall to a hard finish. For walls in sound condition wash down the surface with water and a stiff brush to remove all contaminants, fill all holes with a grouting cement. If the surface is mould covered wash down with Sodium Hypochlorite, Chlorine or a household bleach to remove the mould then apply Astec Barrier to retard any underfilm mould spoilage. Apply one coat of Oil Based Undercoat then apply two coats of a suitable U.V stable top-coat.

##### PVC

Sand the entire surface and wipe down with Astec All Purpose Thinners prior to any coating application.

##### GALVANISED IRON, ZINCALUME

*New Unpainted:* Degrease thoroughly with Astec Wash'n' Etch, apply one coat of Astec Oil Based Primer/Undercoat, then apply two coats of a suitable U.V stable top-coat.



*Painted:* Remove all loose chalked and flaky paint. Treat any rust with Astec Rus-traint in accordance with the application details on the can. Apply one coat of Astec Oil Based Primer/Undercoat, then apply two coats of a suitable U.V stable top-coat.

##### FIBRO CEMENT

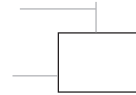
*New Unpainted:* Wash down the surface with a stiff brush and water to remove any contaminants.



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#### APPLICATION



##### FIBRO CEMENT

*Weathered Asbestos Sheeting:* Do not sand or scrub the surface as breathing the dust can be harmful. Pick off any large clumps of mould or debris, apply two coats of Astec Barrier to retard any mould growth, apply Astec Rivett in multiple coats until all contaminants are securely locked to provide a hard bound surface, refer to Astec Performance Spec No. 8712. Apply Oil Based Undercoat then apply two coats of a suitable U.V stable top-coat.

##### EXISTING BITUMEN IMPREGNATED SURFACES

No sealer is required on surfaces that are in a sound condition that are not weathered to a point where the surface is friable and continues to powder even after being washed down. If the surface is unsound and or the membrane is delaminating from the substrate, the membrane must be completely removed or partially cut out where it is loose and re-adhered at the cut out edges to the substrate.

Membranes in sound condition, wash down with water and a stiff brush to remove all contaminants, fill all holes with a grouting cement. If the surface is mould covered wash down with Sodium Hypochlorite, Chlorine, or a household bleach to remove the mould, then apply Astec Barrier to retard any under film mould. Apply Oil Based Undercoat, then apply two coats of a suitable U.V stable top-coat. The application of Oil Based Undercoat over bitumen may require two coats to completely tie back the bitumen stained solvent that evaporates from bitumen. A test patch will be required to quantify if two coats are necessary.

**NOTE:** DO NOT APPLY OIL BASED UNDERCOAT TO SURFACES THAT HAVE HAD A WAX OR SILICONE BASED MATERIAL PREVIOUSLY APPLIED.

#### PRECAUTION FOR USE / SAFETY

Avoid contact with skin and eyes and avoid breathing the vapour, spray, mist or dust. Wear suitable protective clothing including rubber gloves and safety goggles. An organic vapour cartridge respirator should be worn.

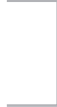
#### LIMITATIONS

Highly flammable. Avoid heat, sparks, flame and contact with oxidising agents. Equipment should be earthed.



## Oil Based Undercoat

### PRODUCT DATA



■	Colour	White, may be tinted to light or mid tones
■	Gloss Level	Flat
■	Drying Time @ 25°C	touch dry 30 mins - 1 hour, 12 hours full cure
■	Recommended Thinners	Mineral Turpentine
■	Recoat Time @ 25°C	8 hours
■	Recommended DFT	100 microns
■	Theoretical Spread Rate [@ 100 microns]	6.8m <sup>2</sup> per litre [including two coats]
■	Theoretical Spread Rate [@ 30 microns]	22.6m <sup>2</sup> per litre
■	Specific Gravity	1.313
■	Solids Content	67.89% W/W
■	PVC	46%
■	Abrasion Resistance	Fair
■	Solvent Resistance	[Splash] Fair
■	Packaging	1ltr, 4ltr, 10ltr cans 20ltr drums

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