



Duro-Seel

What's 'Duro-Seel' used for?

While it's mostly used to provide long-lasting protection to existing cast-in-place concrete — mainly floors, driveways and other pavements — 'Duro-Seel' also colours and waterproofs. Over the past 15 years it's also been used successfully on concrete products, brickwork, block-work, cement renders, old concrete roofing tiles, sandstone and limestone. In addition, it can be used with new freshly-set concrete and mortar, as a liquid curing compound, or same-day sealer which effectively retains all of the properties of a given grade or class of pre-mixed concrete. It's excellent for rectifying colour variation and patchiness of many building surfaces.

How is the 'Duro-Seel' applied?

You can use any of the normal application methods — brush, roller, spray equipment or even a soft to medium-hair broom. Clean up of tools or equipment is effected with mineral turpentine. Ability Building Chemicals prescribes a minimum of two coats, while noting that a third coat will increase the product's lasting qualities — particularly wear resistance - and ensure that the concrete surface does not need treating again for many years, with all the cost and inconvenience that might entail.

How long will it last?

Provided the concrete driveway, pool surround, pathway, traffic island, highway median strip, wall, roof, etc., is properly prepared by means of the correct use of a 3,000 psi water-blasting machine, allowed to dry and two full coats applied one day apart, most applications of coloured 'Duro-Seel' should last 10 to 12 years. There are many jobs in Melbourne which are 16 years old. Clear 'Duro-Seel' lasts less.

'Duro-seel' liquid coating, satin and curing compound

'DURO-SEEL' for existing cast-in-place concrete, concrete products, cement renders, etc

'Duro-Seel' is a unique, ready-to-use and safe-to-use, single pack, liquid penetrative, colouring, waterproofing decorative and protective 'sealer'/coating/stain preparation essentially intended for cement-bound surfaces. It is available direct from Ability at about the same cost as good quality paint.

The product is usually applied directly from the container without dilution for application, in a minimum of two (2) coats, to properly prepared existing surfaces.

Duro-Seel' usually provides a natural looking coating system. It is a proven, very long

lasting product having excellent performance. Application equipment is cleaned with mineral 'turps'.

Due to its excellent water and corrosion resistance, with adequate permeability to water vapour, applied and hardened, 'Duro-Seel', using a minimum of two (2) coats, affords extremely high protection to concrete structures against ingress of water, erosion by weathering, corrosion of reinforcing steel as well as carbonation of concrete.

It penetrates absorbent surfaces relative to the specific absorbency factor of the particular material substrate and helps to consolidate and bind weakly bound surface particles.

'**Duro-Seel**' has been most successfully used for over 12 years. It was developed by Ability, a solely Australian organisation in Australia, for severe external Australian exposure conditions, especially for concrete, mortars and other porous but sound and firm building substrates. It is suitable for protecting and decorating internal as well as external building surfaces provided that they are properly prepared to make them lightly textured to provide a 'key' to ensure adequate adhesion, soundness, firmness and cleanliness.

Colour range and application methods: 'Duro-Seel' is available as a translucent clear or in 24 attractive earthy and some pastel colour tones. Colours include 'Riverblend Beige', Terra Cotta, Black, Charcoal, Green and low opacity White (or high opacity white at a higher price on firm, advance order). The product is very easy to apply by normal painting methods such as a soft to medium hair broom, brush, roller, compressed air operated or airless spray equipment.

Packing and typical covering: 'Duro-Seel' is packed in 20 litre pails, the contents of which typically covers approx. 50 square metres (50m²) of concrete surface for the mandatory two (2) coats. So, as an example, for a proper two (2) coat coating seal on a concrete paving job involving say 150m² approximately three (3) 20 litre pails totalling 60 litres will be required.

Like other coatings, additional coats of 'Duro-Seel' will increase its lasting qualities. However, a 2 coat low sheen 'Duro-Seel' system applied to properly prepared surfaces will last for many years before it is necessary to re-coat and is considered by most users to be all that is necessary.

PS: 'Duro-Seel' is used relatively inexpensively to very effectively seal, colour and protect existing concrete and other suitable absorbent surfaces which are properly prepared to make them sound, strong, firm and clean. Coloured 'Duro-Seel' contains the highest quality UV. resistant pigments of the man-made, inorganic mineral oxide type - Ability's 'ABILOX[®]' brand - and it therefore lasts and lasts. 'Duro-Seel' is another quality product from Ability Building Chemicals Co.

‘DURO-KOTE’ ‘Duro-Kote;’ is from the same family as ‘Duro-Seel’. ‘Duro-Kote’ is a heavier duty, higher film build, satin finish, opaque colour surface treatment and colour ‘re-surfacer’ version of ‘Duro-Seel’. It is suitable for coating concrete floors and pavements, mortar, masonry brick-work and, after priming with Ability’s ‘The Paint’ for coating asphalt black-top (bituminous concrete) pavements as well as many other exterior/interior vertical or horizontal surfaces. It is exceptionally waterproof and has higher abrasion resistance than ‘Duro-Seel’ which on concrete surfaces is usually used as its primer coat (and, if required as an intermediate coat for a highly durable three (3) coat system) under the final finishing coat of ‘Duro-Kote’. However, please test first prior to actual use for any possible slip hazard.

A combined curing & coating product for concrete

Description:

‘Duro-Seel’ is a single component, protective and decorative concrete floor, pavement, wall and roof coating ‘sealer’ for hardened, existing concrete, (as well as a liquid CONCRETE CURING COMPOUND for freshly finished "just set" concrete, mortars etc.) It is a water-proofing opaque colouring stain finish for concrete and other similar stable, firm, and dry existing surfaces.

‘Duro-Seel’ is available in translucent CLEAR and twenty four (24) standard COLOURS.

Some advantages of Duro-Seel are:

EXCELLENT WATERTIGHT SEAL

‘Duro-Seel’ applied with a minimum of two (2) coats, provides a tight, continuous coating that is impervious to water and most other liquids and provides a totally, non-porous new surface. It can be used to solve the problems of dusting and surface weakness of both new and old cement bound concrete and mortars as well as of gypsum plaster bound surfaces.

AVAILABLE IN BEAUTIFUL DECORATOR COLOURS – as well as CUSTOM colours by arrangement

‘Duro-Seel’ is available in translucent CLEAR as well as a wide range of natural ochre and other colour tones capable of adding new, delightful colour dimensions to floors, concrete drives, patios, pool surrounds, pavements etc., as well as to both concrete and baked clay masonry walls, to stucco, rendered and "bagged" mortar finishes on brick walls, concrete roofing tile and fibro cement roofs, etc.

NON SAPONIFIABLE

New freshly finished, "just-set" and newly hardened concrete and mortars are strongly alkaline in chemical nature. ‘Duro-Seel’ is fully resistant to this alkali content – it will not saponify and flake off by chemical adhesion failure like most other paints or coatings –

provided that it is properly applied with a minimum of two coats according to our recommendations.

EXCELLENT PENETRATION POTENTIAL & GOOD ADHESION

Unique 'Duro-Seel' is capable of penetrating porous cement and plaster bound surfaces such as hardened, existing mortars, renders, concretes and grouts (over 72 hours approx. after application or placement) with excellent adhesion and bond to and into the surface. However, this can only occur after ALL laitance (weak surface cement 'scum') is removed and the surface is completely dry.

'Duro-Seel' also effectively bonds to freshly finished concrete which has set but only partly-hardened (typically between 5-7 hours old approx. – depending on the temperature and weather) and is highly recommended for use in this optimum IDEAL way ie. as a water retentive membrane CURING compound. A curing compound is often applied with a boom extension spray unit, thus avoiding the need to walk on the concrete.

MEDIUM TO FAST DRYING TIME

'Duro-Seel' usually dries dust-free within four to six hours at an ambient temperatures of 25°C and 50% relative humidity. Light 'through' traffic is usually possible after overnight dry of the second or final coat. More time should be allowed for drying and hardening in lower temperatures and higher humidities.

Sixty percent of its ultimate hardness is usually reached within 48 hours and 100% in 14-21 days - depending on the weather. It is not usually affected in a major way by showers of rain or water spillage onto its undried surface.

NATURAL FINISH

'Duro-Seel' results in low-sheen almost matte, natural decorative colour effects on typical semi-absorbent surfaces, usually retaining all subtlety of texture or smoothness without a 'painted' look. It's coefficient of "slip" is usually neither increased nor decreased, (SEE PAGE 5). However, a glossier finish will usually result on less porous and/or smooth substrates and/or if more than 2 coats are applied.

EXCELLENT CHEMICAL RESISTANCE

'Duro-Seel' when applied as directed with at least two (2) coats and fully dried and cured is virtually chemically inert. It is highly resistant to most alcoholic beverages, detergent solutions, salt water and 'salty' environments, chlorinated water, mild acids and alkalis. It resists most chemical spillages and environments.

However, it is NOT highly resistant to constant heavy spillage, or immersion in, chemical solvents, vegetable oils, mineral oils, petrol (gasoline) and hydraulic brake fluids etc.

Therefore avoid spillage of these liquids. Should this occur, wipe up immediately. Other Ability surface treatments and coatings are available for surfaces subject to regular spillage of these materials.

FAIR TO GOOD RESISTANCE TO SPILLAGE OF MINERAL OIL AND GREASE

'Duro-Seel' will generally resist mineral oil and grease spillage which will not usually

damage the surface --if readily wiped off promptly. However, 'Duro-Seel' is NOT recommended for areas subject to immersion in or heavy spillage of vegetable oils, chemical solvents, petrol, hydraulic brake fluids etc.

COLOUR STABLE,

Unique 'Duro-Seel' incorporates Ability's 'ABILOX®' non-fading U.V. resisting (and absorbing) synthetic mineral oxide colouring pigments. These are VERY long lasting and EXCEPTIONALLY resistant to light, weather and most chemicals.

LONG WEARING & LONG LASTING

'Duro-Seel' has very good abrasion resistance if properly applied with a minimum of three (3) coats in heavy wear areas and in "torture spots" adjacent to doors etc. It also features very VERY LONG LASTING weathering resistance [minimum of two (2) coats] which has been technically estimated to be in excess of 20 years (colours only – not clear) under typical exceptionally harsh, high UV. Australian exterior exposure conditions. There are now many coated and sealed paving and other concrete construction jobs where 'Duro-Seel' has been used which are over twelve years old and are still in almost perfect condition.

NON-TOXIC

'Duro-Seel' high polymer rubber/acrylic resin and pigment ingredients are non-toxic, odourless and tasteless. This makes 'Duro-Seel' when dry, the ideal coating for use in most food production areas (but NOT where vegetable oils are used), or on roofs used for rain water collection.

It incorporates only low toxicity, SAFE-TO-USE 100% aliphatic solvents, so heavy self contained breathing apparatus is not required for its application although we recommend the use of light mouth and nose masks as a general safety precaution.

If preferred, a very durable water-based alternative to 'Duro-Seel' with high resistance to mineral oil and petrol is available. This alternative is called 'DY-ON-CRETE®'.

MOULD RESISTANT

'Duro-Seel' ingredients are exceptionally water-proof, water resistant and normally mould resistant. They do not support the growth of mould and bacteria and other micro organisms provided that no moisture is constantly present on the surface due to poor drainage, water leakage etc.

LOW IN OBJECTIONAL "PAINT" ODOUR

'Duro-Seel' is odourless - once completely dry and the MILD, non-toxic aliphatic solvent Mineral Spirit has evaporated completely (in about 24 hours depending on the weather). There is no lingering odour, to contaminate foodstuffs, liquid beverages etc.

EASILY MAINTAINED

'Duro-Seel' is resistant to typical types of detergent floor cleaners and is readily washed and maintained by normal methods of washing and cleaning.

Damaged or worn areas of a 'Duro-Seel' treated surface can be 'touched-up' and easily

recoated – usually with only a single coat, with perfect intercoat adhesion. These maintenance coats do NOT require sanding or scarifying as is usually required for conventional paving paints and opposition concrete sealers based on binders such as acrylic resin solvent solutions, epoxy resins etc. Any new ‘Duro-Seel’ application chemically bonds to a cleaned, dry, non-contaminated existing (old) ‘Duro-Seel’ application.

SAFE-TO-USE SOLVENTS

‘Duro-Seel’ is formulated with only aliphatic solvent. It contains no toxic aromatic chemical solvents such as toluene and xylene and special masks or lung protection is not necessary when it is being applied. However, light nose and mouth masks are recommended for use as a general safety precaution.

‘DURO-SEEL’ may be used in areas such as:

- > COASTAL MARINE CONCRETE
- > COLOURED CONCRETE
- > CONCRETE BRIDGES
- > OFFICE FLOORS
- > SHOPS and SHOPPING CENTRES
- > CONCRETE TILE ROOVES
- > DAIRY FACTORIES
- > SWIMMING POOL
- > LAUNDRIES COMPLEXES
- > PLANT ROOMS
- > LIGHTHOUSES
- > POOL SURROUNDS
- > PATIOS
- > CONCRETE PATHS
- > LOCKER ROOMS
- > CHEMICAL PLANTS
- > CONCRETE TANKS

>
SHOW ROOMS
>
TOILETS
>
MASONRY PAVING
>
HOTELS AND MOTELS
>
PATTERN IMPRINTED and ALL OTHER CONCRETE PAVING
>
WINE VATS/TANKS ETC.
>
BAKED CLAY MASONRY
>
BRICK WALLS
>
WAREHOUSES & STORES
>
CONCRETE BRICK/BLOCK
>
DRIVEWAYS
>
CEMENT RENDERS
>
FIBRO CEMENT, GRC,

The 'Duro-Seel' 2 or 3 coat coating system or a system with 'Duro-Seel' for the first coat plus subsequent coats of 'Duro-Kote' or 'Dy-On-Crete®' for any particular project MUST only be applied in air temperatures below 28°C and above 14°C.

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