



PRODUCT TRAINING GUIDE

Featuring Crown Trade, Sandtex Trade & Sadolin products.



It's not just paint.
It's personal.®

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INTRODUCTION



Crown Paints is one of the largest paint manufacturers in the UK and offers a comprehensive range of products for the professional through its Crown Trade, Sandtex Trade and Sadolin brands.

Crown Paints' extensive knowledge of colour, allied to a wide product range, customer orientated service and a keen environmental awareness, ensures that we maintain a strong position within the market. Our ranges of integrated coating systems complement one another chemically and aesthetically to provide stunning, durable, low maintenance finishes.

With two manufacturing sites, together with strategic warehouse depots, a network of independent stockists and over 130 Crown Decorating Centres across the UK and Ireland, Crown Paints can offer a truly

comprehensive means of distribution to painters and decorators.

Crown Paints aims to achieve the highest standards and is approved to BS EN ISO 9001:2000 BS EN ISO 14001:2004 and has had continual ISO 14001 accreditation across all its sites since 1999.

This useful booklet has been produced to support the professional decorator with the background technical knowledge of decorative finishes, substrates and preparation, common decorating problems, colour choice and legislative issues that you might encounter in your work.

For more information about any Crown Paints products, please call our Customer Relations Team on 0845 389 9583.

WHY USE PAINT?

Paint has come a long way since crushed molluscs for purple, the Cochineal beetle for red and concentrated cows' urine for yellow were used. The use of paint today extends way beyond fine art and adornment into the realms of hygiene, protection, identification and aesthetics.

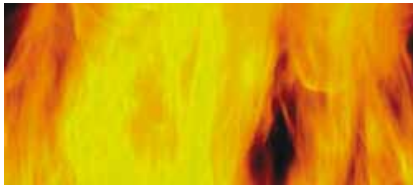


Pigments of Cochineal beetle



Hygiene

To provide a substrate/surface that is cleanable or resistant to contamination.



Protection

To protect the substrate from deterioration and so reduce maintenance requirements. Physical protection (e.g. flame retardancy).



Identification

To assist in the identification of hazards or act as 'signposting' to help people find their way around a building by the use of colour. Uses for corporate identity.

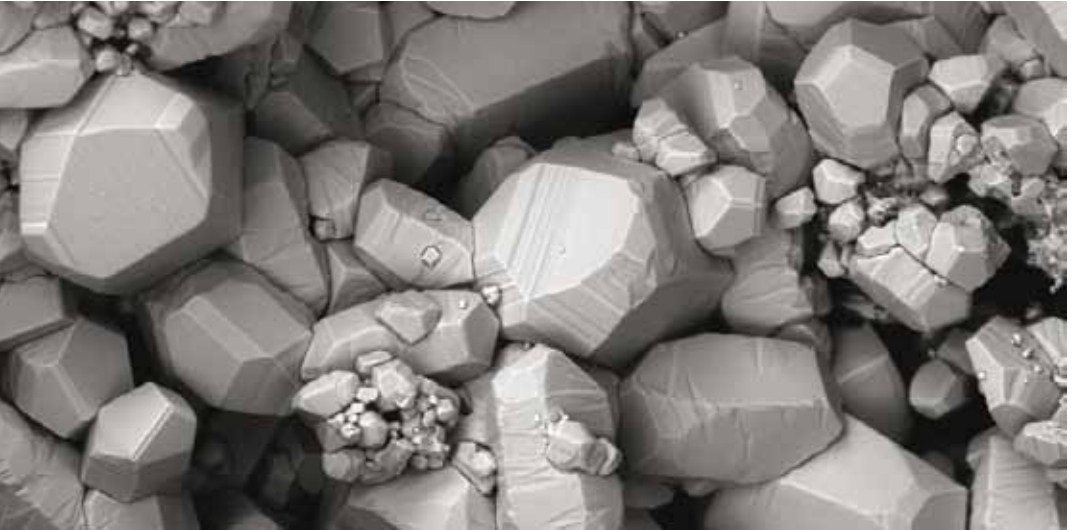


Decoration / Aesthetics

To improve the overall appearance of surfaces and create mood and atmosphere.

WHAT IS PAINT?

A clear or pigmented material, which when applied in a liquid form to a given surface, forms a dry adherent and protective film.



Calcium Carbonate (extender)

What raw materials make up paint?

Pigments

(Colour, Opacity, Inhibitive)

Titanium Dioxide, Ochre

Transparent Iron Oxides

Zinc Oxide

Aluminium

Zinc Phosphate

Micaceous Iron Oxide

Binder / Medium

(Film Former)

Modified Soya & Tall Oils

High Solids/Alkyd

Acrylic/Vinyl

Epoxy

Polyurethane

Additives

Driers

Surfactants

Biocides

Anti foam & skinning agents

Thickeners

Mineral aggregates
(textured coatings)

Extenders

(Fillers)

Talc

Barytes

Whiting

China Clay

Solvent / Thinner

(Diluents)

De-aromatised White Spirit

Water

CHARACTERISTICS FOR THE BEST DECORATIVE FINISH



- Suitable for application using various application techniques
- Have good wet edge properties
- Good flow-level
- Resistant to runs and sagging
- Dry quickly after application
- Good opacity
- Recoatable
- Abrasion resistant
- Provide appropriate decorative and protective finish in service
- Desired decorative finish

HOW PAINT IS MADE & THE DRYING PROCESS

The paint manufacturing process

The raw materials used in the paint manufacturing process include solids, resins and solvents. Solids provide the coating with opacity, colour and a degree of durability. Binders are components which form a continuous phase, hold the solids in the dry film and cause it to adhere to the surface. Solvent is required for adjustment of the paint viscosity.



How different types of paint dry

There are different ways in which paint coatings dry, and the drying process is determined by paint type and the climate conditions during and after application.

Emulsion Paints (water-based)

Stage I - Evaporation

This commences almost immediately after the application of the paint film and is the changing of the liquid thinner into vapour. Every surface coating goes through this process. In the case of water-based paints it is the water which evaporates.

Stage II - Coalescence

'Coalescence' refers to the controlled drying of the polymer (PVA or acrylic) in emulsion paints. Coalescence encourages the polymer particles to stick together like a very strong adhesive. (Think of unwrapped toffees): the finished article can be very flexible.

Two pack products



When mixed together in the correct proportions, the two components immediately commence a chemical reaction resulting in the liquid 'curing' and converting into a dry, hard film.

Oil Based Paints (solvent-borne)

Stage I - Evaporation of the solvent

(same process as water-based paints)

Stage II - Oxidation

'Oxidation' refers to the alkyd film former taking up oxygen from the air. This helps convert the oil from the wet to the dry state. Anything that prevents oxygen combining with the paint film will prevent drying. A good example is traces of wax polish contamination on a surface; these deposits can migrate into the paint and prevent the oxidation process.

Stage III - Polymerisation

'Polymerisation' is a chemical change which follows oxidation. Simple chemical units combine to form large complex molecules by multiple interlinking. Imagine knitting a wire vest – each strand is quite weak: the finished article is exceptionally strong.

DID YOU KNOW

When two pack products are mixed, the term for the working life of the paint in-can is called a 'pot life'.

THE FIRST APPLICATION - PRIMER

Primer

This is the most important part of a coatings system, as the adhesion of a primer will play an important role for other paint systems applied over it.

DID YOU KNOW

The first paint coating can also be referred to as a Basecoat, Basestain, Mistcoat or Sealer.



The term 'primer' refers to the 'first' coat within a paint system when applied to new, unpainted or previously decorated surfaces with the objective of fulfilling certain specific criteria which include one or more of the following:

- To protect against decay or corrosion
- To penetrate into and reduce the suction of a porous surface
- To provide good adhesion and a sound foundation for subsequent coatings
- To provide a barrier over a chemically active surface
- To stabilise a powdery surface

BUILDING SUBSTRATES

Timber building & associated building boards

Wood is defined in two categories - Hardwood and Softwood.

Timber is painted, varnished or stained, not only for decoration, but for protection. The coatings protect the wood from decay, the ravages of the weather or from surface contamination, and reduce the amount of swelling and shrinkage caused by moisture ingress. Different timbers require different treatments according to their structure.

Some oily and resinous timbers contain 'exudates' which can ooze out and others (such as oak, idigbo) contain water soluble chemicals (e.g. tannins), which make them durable. These extractives (e.g. tannins) can leach out of timber.

DID YOU KNOW

A moisture content of approximately 10% is always retained in the cell structure of timber.



Hardwood

A conventional term used to denote the timber of broad-leaved trees. Typical examples are: Oak, Beech, Birch, Sycamore, Walnut, Mahogany, Teak and Iroko.

Softwood

A conventional term used to denote the timber of coniferous or needle-leaved trees. Typical examples are: Pines, Spruce, Hemlock, Douglas Fir.

DID YOU KNOW

The terms hardwood and softwood are often misinterpreted as relating to the physical hardness or softness of the timber. The majority of the hardwoods are harder than softwoods but there are a few notable exceptions, two of these being balsa which is a hardwood (average weight 7 to 10lbs/cubic foot), and yew, which is a softwood (average weight 42lbs/cubic foot).

WOOD'S NATURAL ENEMIES



Moisture

'Green' timber contains both free water in the cell cavities and water absorbed by the cell walls. Seasoning / kiln drying reduces the moisture content to 15-18% and so stabilises the timber to make it suitable for construction and painting. The moisture content can be checked with an electrical moisture meter. As the timber dries it loses the free water from the cell cavities and the fibres remain saturated and fully swollen; it shrinks progressively as more moisture is removed.

If timber is painted with moisture content above 18%, then blistering, and flaking is likely to occur.



Fungal attack

If the moisture content exceeds about 22% for long periods, wood is susceptible to fungal attack. Where woodwork is painted, the principal agents of decay are the wet-rot fungi. Surface moulds and blue-stain are also likely to develop causing disfigurement of paintwork.



DID YOU KNOW

Shrinkage is greatest across the grain and is reversible, so that changes in weather or humidity cause alternate swelling and shrinkage.

Sunlight (UV)

Sunlight causes changes with loss of colour and degradation of the wood's surface, impairing the adhesion of any decorative coating.

TIMBERBOARD SUBSTRATES

There is a wide variety of building boards available, i.e. plywood, blockboard, sterling board, chipboard, hardboard and MDF, some of which are suitable for interior use only. In some instances it may be necessary to contact the board supplier for information before painting.

A general specification guide for painting the main types of boards available is as follows:

Plywood panels used externally should be WBP grade plywood to BS6566 Part 8 1985.

Where the face veneer of plywood externally has checked/cracked, the use of a high textured coating incorporating a scrimming membrane, should be considered (Sandtex Trade High Build). If pre-finished infill panels require painting, seek advice directly from the manufacturer.



MDF - Medium Density Fibreboard

This type of building board is made by compressing wood fibres and a bonding agent. MDF was marketed initially as a furniture grade board with superior characteristics in terms of surface texture, smoothness and machine-ability (especially edges).

Specification (water-based) – Crown Trade Grip Extreme & Crown Trade Acrylic Gloss or Crown Trade Acrylic Eggshell (2 coats).

Specification (solvent-borne) – Crown Trade Grip Extreme, Crown Trade Full Undercoat & Crown Trade Full Gloss (1 or 2 coats) or Crown Trade Eggshell (2 coats).



DID YOU KNOW

MDF is also available in a moisture resistant grade, suitable for external use.

HINTS & TIPS

MDF can contain large amounts of paraffin wax, which can react with conventional solvent-borne paint systems leaving flat areas on a glossed surface. Unfortunately, this is not usually evident until the gloss paint has dried.

The use of a water-based primer undercoat, (based on a non-organic solvent) provides an effective barrier enabling the application of solvent-borne paints.

TIMBER PREPARATION

New timber

- All surfaces must be sound, clean and free from anything that will interfere with the adhesion of the material to be applied.
- Prior to painting exterior woodwork, the moisture content should not exceed 18% (interior 15%).
- Rub down new timber with fine abrasive paper to obtain a smooth finish & dust off.
- Remove excess resin by scraping off and cleaning with Methylated Spirit. A heat gun can be used to draw out excess resin if required. Wipe off timber with Methylated Spirit using a lint-free cloth (rotate the cloth regularly so that grime is not reintroduced).
- Apply 2 coats of fresh Shellac* knotting solution under products which require them (refer to BS6150).

* Refer to 'Did You Know' tip above regarding Sadolin products.

- To all non-durable, non-preservative treated bare softwood timber, brush apply a proprietary timber preservative to all exposed surfaces and end grains, in accordance with the manufacturer's instructions.

DID YOU KNOW

Shellac knotting darkens and thickens with age. It is not recommended under Sadolin varnishes or woodstains.



Previously decorated timber

- Remove all areas of defective paint coatings back to bare wood by scraping and/or use a hot air paint stripper or proprietary paint stripper/remover as per manufacturer's instructions. Rub down exposed timber with abrasive paper to obtain a smooth finish. Feather off edges. Dust off.

HINTS & TIPS

Round off sharp edges to a 3mm radius especially on external window cills to maximise durability.

- Allow to dry thoroughly before overcoating.
- Scrub and swab oily hardwood surfaces with Methylated Spirit, frequently changing the face of the cloth. Allow solvent to evaporate before priming.



- Rake out any defective putty fillets and cut out all rotted timber. Replace rotted timber with new, sound timber, pre-treated with suitable preservative, as described on page 14.
- Prime all areas of the bare timber, including exposed putty rebates and endgrains, with appropriate wood primer.
- Treat any areas affected by mould or algae growth, with a fungicidal solution in accordance with the manufacturer's instructions.
- Wash all remaining areas of sound paintwork with a mild detergent solution to remove dirt or grease deposits. Wet abrade surfaces with waterproof abrasive paper to form a key. Rinse thoroughly with clean water to remove all residues. Allow to dry.
- Ensure all pin, nail and screw fixings are sunk well below the surface and make good all surface imperfections using suitable wood filler. Allow filler to dry, rub down smooth and level to existing surface. Dust off.
- Remake putty fillets with linseed oil putty and allow new putty to form a hard skin before painting.

DID YOU KNOW

By 'bringing forward' the primed areas with an additional coat of paint the durability of the paint system will be increased.



Sandtex
TRADE
The No.1 exterior solution

Paint Systems

Window joinery, timber panels, building boards, doors & cladding

Solvent-based

Primers



Flexible
Primer/Undercoat

Intermediate



Flexible
Primer/Undercoat



Flexigloss
X-tra



Eggshell
X-tra

Finish



Flexigloss
X-tra



Eggshell
X-tra

Preparation



Fungicide



Ready Mixed
Filler



PREPARATION



FILLERS



Exterior & Interior

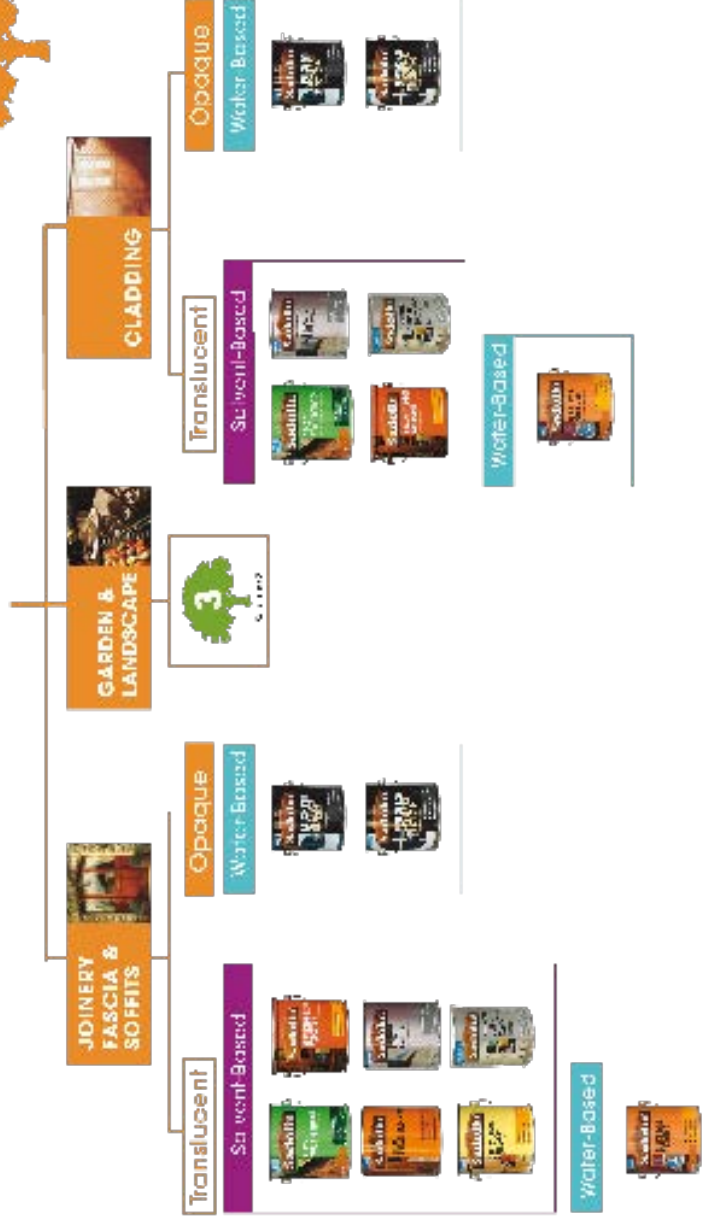


PRESERVERS



Preserving new untreated soft woods







EXTERIOR



GARDEN & LANDSCAPE



Translucent

Solvent-Based



Opaque

Water-Based



Translucent

Solvent-Based



Water-Based



Translucent

Solvent-Based



Water-Based



Oil Based



Opaque

Translucent

Solvent-Based



Opaque

Water-Based



Crown Paints **PaintSpec Finder**™ allows you to create a unique specification for your project at: www.crownpaintspec.co.uk



INTERIOR



Paint Systems for Interior Timber

Window joinery, timber panels & boards, doors, frames, skirtings & architraves

Solvent-borne

Primers



Intermediate



Finish



Pre-treatment:



Water-based

Primers



Intermediate



Finish



Window joinery, timber panels, building boards, doors, cladding

Solvent-borne

Primers



Intermediate



Finish



Water-based

Primers



Intermediate



Finish



METALS

Metals generally fall into two main categories. The right choice of primer is paramount for adhesion and protection.



Metal - ferrous

- Cast Iron
- Steel
- Wrought Iron

Corrosion (rust)

The reddish-brown coating (mainly ferric oxide) formed on iron or steel during exposure to air and moisture.

Mill Scale

A layer of iron oxides formed on the surface of the steel following hot rolling, initially blue in colour. Should be allowed to corrode or be shot blasted prior to painting.

DID YOU KNOW

Bright galvanised metal requires thorough degreasing before an application of Crown Trade T-Wash which will turn black. This is an indication of correct preparation before the application of the appropriate metal primer.



Metal - non-ferrous

- Aluminium
- Copper
- Lead
- Zinc (galvanised)

Under normal exposure conditions these types of metals are stable and resistant to corrosion. Satisfactory adhesion of paint coatings is achieved by thorough surface preparation.

Galvanised metal

Molten zinc applied by dipping is used to provide a 'protective' coating to steel components.

Aluminium

This lightweight metal is frequently used for many types of non-structural components in the building industry.

Copper

Typically, this material is used for water/central heating pipework etc.

Good painting practice for metals

Prime exposed iron and steel as soon as possible after preparation, certainly within the same working day. On shot/ grit blasted steel within 4 hours.

Brush application is preferred for decorative primers, especially where hand cleaning methods are used, in order to achieve optimum adhesion.

Apply paint coatings:

- When the ambient temperature is above 8°C.
- When the relative humidity is less than 80%.

DID YOU KNOW

The application of a 'stripe' coat to angles, edges and bolt fixings etc. is recommended to ensure sufficient film build on sharp edge detailing.

- When the surface temperature is more than 5°C above dew point.
- When the surface temperature is less than 50°C.
- When there is no likelihood of rain, snow, fog or mist, or when such conditions are not anticipated during application and drying.
- Allow 'stripe' coats to fully dry before overcoating.

Sandtex **TRADE** Paint Systems

The No.1 exterior solution

For Exterior Metals - Ferrous and Non-Ferrous

Solvent-borne

Primers



Rust Inhibiting
Primer Undercoat

Intermediate



Rust Inhibiting
Primer Undercoat



Metal Gloss
X-tra

Finish



Metal Gloss
X-tra

Preparation



Sandtex Trade Fungicide



Crown Trade T-Wash

Paint Systems for Interior Metal

Ferrous and non ferrous

Solvent-borne

Pre-treatment

Water-based

Primers



Primer



Intermediate



Intermediate



Finish



Finish



CROWN TRADE Paint Systems for Exterior Metals & Cladding



† protective coverage designed for ultimate durability

PaintSpec Q[™] **Finder** Crown Paints **PaintSpec Finder**[™] allows you to create a unique specification for your project at: www.crownpaintspec.co.uk

PLASTER & PLASTERBOARD

Plasters commonly used today are based on gypsum, and the main type is retarded hemihydrate e.g. Thistle or Carlite (lightweight).

It is important to allow new plaster to dry out sufficiently before painting and remove any plaster fines (scum) which may have been produced by over-trowelling.

Any efflorescence which could originate from a cement based backing material must have ceased, and all crystalline (white) deposits removed by dry brushing prior to painting.

HINTS & TIPS

When painting, make sure that the conditions in the room are not too cold or too humid.



Generally, a highly permeable coating is recommended for new plaster in order to allow the plaster to continue drying after initial decoration.

Plasterboard is a gypsum plaster encapsulated with a stout paper to provide a smooth decorative finish and is used instead of the traditional bricks and plaster method. This 'dry lining' method where the plasterboard is attached to a timber or metal studding is used extensively in new build and refurbishment. Often, the plasterboard joints are taped and are not skimmed, to save time and reduce costs. Crown Trade Covermatt Drywall Primer will even out porosity and texture of dry lining, in particular the joints

DID YOU KNOW

The priming 'mist coat' should be thinned with 40% clean water to satisfy porosity, highlight surface imperfections and help reduce surface tension.

Plasterboard preparation

New plaster & plasterboard

All surfaces must be clean, suitably dry and free from plaster fines and anything that will interfere with the adhesion of the materials to be applied.

Remove any loose material or efflorescence by scraping and dry bristle brushing. Fill any surface defects with suitable interior filler. Allow to dry. Rub down with fine abrasive paper. Dust off.

- It is important that all new substrates are allowed to dry out in depth before applying a relatively impermeable solvent-borne system.

Previously painted plaster & plasterboard

Remove all loose and flaking material back to a sound edge, and feather the surrounding paintwork with abrasive paper to reduce the need for fillers.

Treat any mould or algal growth with fungicidal solution in accordance with the manufacturer's instructions.



Wash down sound paint with mild detergent solution to remove all contaminants. Glossy surfaces should be wet abraded to provide a key.

- Rinse thoroughly with clean water to remove all residues. Allow to dry.
- Repair cracks etc. with a suitable interior filler. Allow to dry. Rub down with fine abrasive paper. Dust off.
- Bring forward all repaired areas with an application coat of the specified finish.

HINTS & TIPS

Contract Emulsions are recommended for new plaster & plasterboard.

- Some finishing colours may require an extra coat in order to achieve complete opacity.

Plaster, plasterboard, brickwo

Acrylic Primer
Undercoat



* Solvent-borne products are no longer recommended on interior walls

Paint Systems for Interior Walls

brick, blockwork, render

Water-based
Primers

Pre-treatment



Finishing systems

High Performance - The Right Paint for the Job



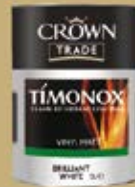
Clean Extreme
Scrubbable
finishes



Steracryl
Mould Inhibiting
finishes



Steracryl
Anti Bacterial
finishes



Timonox
flame retardant
coatings

RENDER, BRICK & BLOCKWORK

External render, brickwork, blockwork & concrete

Render

Generally sand/cement based, may incorporate lime. Additional aggregates provide a variety of texture options.



Types

- Smooth (Wood Float) - smooth finish
- Stucco - smooth finish
- Roughcast - textured finish
- Dry/Wet Dash - textured finish
- Tyrolean - textured finish

Brickwork

Used extensively within the construction industry for its economic availability, durability and strength. Clay (mined) bricks are the most commonly used due to the choice of colours and textures on offer to architects and designers. When new, depending on type, are not usually decorated.



Types

- Clay
- Facing (Surface Pattern)
- Concrete
- Common*
- Engineering
- Stone

* Not recommended for painting

Blockwork

Precast blocks are manufactured from cement, aggregates and water. A wide variety of aggregates may be used to produce a range of blocks with differing characteristics.



Types

- Concrete
- Lightweight
- Dense
- Aerated
- Clay

DID YOU KNOW

The Sandtex Trade range has specific products designed for concrete which have anti-carbonation certification.



Concrete + (steel reinforced)

A very durable material consisting of cement, water and aggregates with addition of plasticisers, normally used in large construction projects for its structural strength - incorporating steel mesh or bars.

DID YOU KNOW

The high alkalinity of the concrete prevents the steel from corroding.



Types

- Precast
- Reinforced

RENDER, BRICK & BLOCKWORK

External render, brickwork, blockwork & concrete preparation

New substrate

- All surfaces must be clean, suitably dry, free from cement fines and anything that will interfere with the adhesion of the materials to be applied.
- Remove any loose material or efflorescence by scraping and dry bristle brushing.
- Fill any surface defects with preparatory fillers and match to the surrounding areas. Allow to dry. Rub down any excess with abrasive paper. Dust off.

Previously decorated

- Remove all loose and flaking material back to a sound edge.
- Treat any mould or algal growth with a fungicide in accordance with the manufacturer's instructions.

- Wash down sound paint with mild detergent solution to remove all contaminants. Glossy surfaces should be wet abraded to provide a key.
- Rinse thoroughly with clean water to remove all residues. Allow to dry.
- Repair cracks and defects with Sandtex Trade preparatory fillers, matching to the surrounding area. Allow to dry. Rub down any excess with abrasive paper. Dust off.
- Bring forward all areas with one coat of Crown Trade Stabilising Solution. Allow to dry.
- Apply selected decorative finish in accordance with manufacturer's instructions.

HINTS & TIPS

Always match repairs to the surrounding areas.



Masonry, Concrete, Brickwork, Blockwork, Stucco, Stucco, Pebbledash

Preparation



Decoration

Solvent-borne



Water-based



*flection bricks (common, regrades and facings) are not suitable for decoration

CONCRETE FLOOR (SCREED)

The specification, construction and any subsequently applied treatment to floors will ultimately be determined by environment and exposure in service such as walking, impact, water, chemicals etc.

Potential substrate problems may include:

Laitance caused by excess water in the mix
Alkalinity
Efflorescence
Surface contamination / Stains
Rising damp / Moisture content

Concrete Floor (screeds) preparation



New substrate

- All surfaces must be clean, suitably dry and free from cement fines and anything that will interfere with the adhesion of the materials to be applied.
- Remove any loose material or efflorescence by scraping and dry bristle brushing.
- Fill any surface defects with preparatory fillers and match to the surrounding areas. Allow to dry. Rub down any excess with abrasive paper. Dust off.

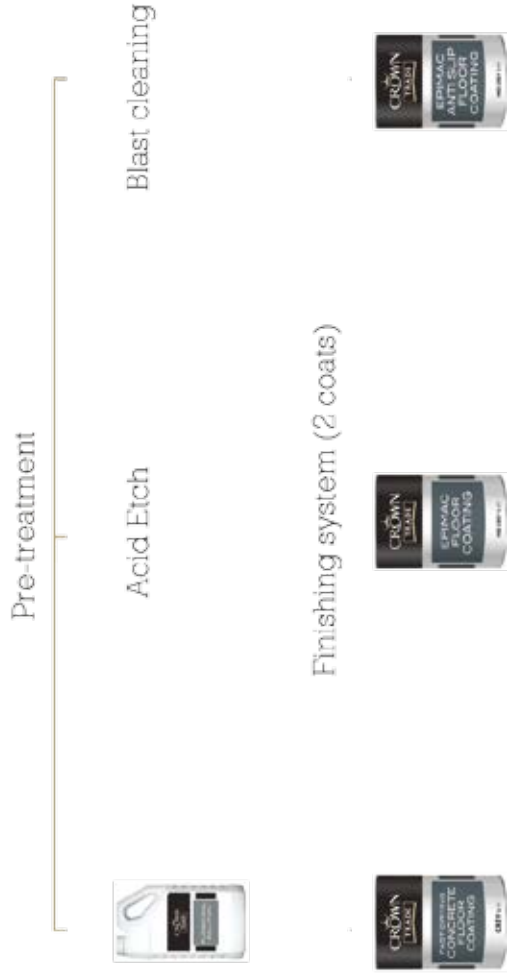
Previously decorated

- Remove all loose and flaking material back to a sound edge.
- Treat any mould or algal growth with fungicide in accordance with the manufacturer's instructions.
- Wash down sound paint with mild detergent solution to remove all contaminants.
- Glossy surfaces should be wet abraded to provide a key.
- Rinse thoroughly with clean water to remove all residues. Allow to dry.
- Repair cracks and defects with preparatory fillers, matching to the surrounding area. Allow to dry. Rub down any excess with abrasive paper. Dust off.
- Prime bare areas with one coat of the specified floor paint. Allow to dry.
- Apply selected decorative finish in accordance with manufacturer's instructions.

DID YOU KNOW

Applying paint coatings in thin layers will help to prevent pooling and ensure thorough coat drying.

Paint Systems for Concrete Floors



CROWN TRADE SPECIALIST PRODUCTS

A continuous programme of product development keeps Crown Trade at the technical forefront in the paint market. Crown Trade offers the products and systems needed for a truly professional result, incorporating specialist paints such as; the Crown Trade Timonox range of flame retardant coatings, the innovative Clean Extreme scrubbable emulsions*, Protective Coatings for metal, Next Generation Plus Gloss and Steracryl Mould Inhibiting and Steracryl Anti-Bacterial products.

* These innovative 'scrubbable' emulsions apply and look like standard emulsions but have a higher rated scrub resistance (ISO 11998 Class 1 Scrub Rating).



Clean Extreme finishes

Crown Trade Clean Extreme Scrubbable Matt provides a true matt finish with the durability and longevity that allows repetitive cleaning with the added benefit of excellent stain resistance. Its self cross-linking acrylic technology and unique blend of raw materials results in a super tough, true matt finish that resists burnish marks.

Crown Trade Clean Extreme Durable Acrylic Eggshell offers the professional an acrylic paint with durability and longevity to allow for repetitive cleaning, it also has excellent stain resistance properties. These properties make it ideal for use in areas subject to condensation and steam (such as kitchens and bathrooms) as well as high traffic areas.

Both Clean Extreme finishes extend the maintenance cycle, reducing the need for costly redecoration and have ISO 11998 Class 1 Scrub Rating.



Crown Trade Timonox flame retardant systems

Crown Trade Timonox flame retardant systems consist of a range of decorative paint finishes and intumescent paints, that have been rigorously and independently fire tested. By helping to restrict the spread of flame, Timonox systems can provide additional time for the evacuation of buildings and assist in limiting damage prior to the arrival of fire fighters. Timonox also offers anti-graffiti solutions in the form of sacrificial and non-sacrificial glazes. The Timonox range of products requires no specialist application techniques.

Crown Trade Timonox systems are subject to rigorous ongoing British and European fire testing, which is carried out independently. The products are either water-based or solvent-free.

Whether commercial or residential, Crown Trade products offer a wide range of decorative solutions and an extensive colour offering.



Steracryl finishes

Containing a special blend of fungicides, Crown Trade Steracryl Mould Inhibiting in Matt and Durable Acrylic Eggshell is one of the most widely specified mould inhibiting decorative coatings in the UK. Developed to prevent mould, mildew and fungus growing on the surface, they are ideal for use in areas prone to dampness and spore growth such as; 'void' areas & properties (i.e. uninhabited), kitchens and bathrooms.

The Crown Trade Steracryl Anti Bacterial range of paints incorporates SteriTouch® and has been developed to assist the fight against bacteria. It has been proven to significantly minimise the spread of disease and infection including antibiotic-resistant Super Bugs such as MRSA, Salmonella, E.Coli and others, as well as mould and fungi.*

Crown Trade Steracryl Anti Bacterial is available in a Scrubbable Matt (Scrub resistance Class 1 to ISO 11998) and a Durable Acrylic Eggshell.

Steracryl Anti Bacterial finishes are ideal for high traffic areas, public interiors where an anti bacterial finish is required such as; hospitals, care homes, kitchens etc.

* Steracryl products are NOT a replacement for normal hygiene and cleaning regimes.



Crown Trade Protective Coatings range

The Crown Trade Protective Coatings system has been specially developed for the protection of structural steel and other metals by preventing rust and corrosion, as well as for the protection and refurbishment of weathered and pre-coated cladding.

Visit: www.crowntrade.co.uk
Email: info@crowntade.co.uk

SANDTEX TRADE SPECIALIST PRODUCTS



Sandtex Trade is a superior range of paints, protective coatings, preparatory and repair materials offering solutions for all exterior new build and refurbishment projects.

The Sandtex Trade range is ideal for masonry, plaster, wood, metal or PVC-u and the products are chosen day in day out by professional decorators and specified by discerning architects and project managers everywhere.

These are high performance coatings, which enhance and protect exteriors in all weathers, many with the accreditation of the British Board of Agrément (BBA).

Examples of some masonry and gloss products are listed below:

X-treme X-posure™ Smooth

A superior smooth masonry paint specially formulated to resist airborne particles, offering a high degree of weather resistance - making it ideal in harsh urban, coastal or industrial areas.

Classic Stone Gloss

A premium protective and decorative smooth gloss finish for use on most exterior surfaces that may traditionally have been painted with a solvent borne gloss paint.

Flexigloss X-tra

A high performance exterior gloss system which provides greater resistance to cracking and flaking than traditional gloss. Specially formulated for the long-term protection of exterior wood.

Metalgloss X-tra

To follow

Visit: www.sandtextrade.co.uk
Email: info@sandtextrade.co.uk

SADOLIN

SPECIALIST PRODUCTS

With a heritage of over 200 years' experience, Sadolin products are at the forefront of woodcare technology. Sadolin provides superior wood protection for all interior, exterior and garden timber.

Sadolin's innovative interior and exterior formulations bring about a range of unique benefits and superior performance characteristics which allow wood to flex and breathe to provide a rich, high durability lustre and ultimate resistance to blistering, peeling and flaking. Sadolin offers a huge range of translucent and opaque coatings in both water-borne, high solid/low-solvent and solvent-borne formulae.

Examples of some of the woodcare products are listed below:

Sadolin Ultra® Base Coat

Sadolin Ultra® Base Coat provides a perfect surface for the top coat to adhere to. It is recommended that Sadolin Ultra® Base Coat is used in conjunction with Sadolin Ultra® Highly Translucent Woodstain for ultimate protection.

Sadolin Ultra® Highly Translucent Woodstain

Formulated with premium iron oxide pigments which allow the coating to be highly transparent. The timber or grain will clearly show through, but the coating will absorb harmful UV radiation which would otherwise damage the wood. It is recommended that Sadolin Ultra® Highly Translucent Woodstain is used in conjunction with Sadolin Ultra® Base Coat for ultimate protection.

Sadolin Classic Wood Protection

Sadolin Classic is a versatile woodstain ideal for use on decking, fencing, cladding and garden furniture which requires a treatment that will absorb into the timber and not build up into a slippery surface.

Sadolin Extra Durable Woodstain

Sadolin Extra is a durable finishing coat for windows, doors and other exterior joinery and for optimum performance should be used in conjunction with a base coat of Sadolin Classic.

Sadolin Superdec Opaque Wood Protection

An attractive alternative to traditional translucent wood finishes in both colour and finish, whilst at the same time providing a solution to the main problems associated with traditional paints. Solid colours are ideal for use on visibly poorer quality timber surfaces. An opaque finish hides timber imperfections while still allowing the natural texture to be retained. Superdec is available in a satin finish, with SuperWhite and Black also available in gloss finish.

Sadolin PV67 Heavy Duty Varnish

Sadolin PV67 is a two pack varnish ideal for areas that receive severe abrasion, such as bar tops or heavy traffic floor areas e.g. dance floors or hallways.



Visit: www.sadolin.co.uk
Email: info@sadolin.co.uk

CHOOSING COLOUR

Better colour choices for your customer

Colour can be very subjective but there are various general rules that apply. So for the future, when your customer asks your opinion or can't decide – there are some basics that you can cover:

- What is the use of the room and lighting conditions?
- Which furnishings (i.e. flooring, furniture, blinds etc.) are they keeping?
- What is the style of the room – is it modern or period?
- Do they understand how the colour choices will affect the room?
- Using patch cards or painting a test colour are useful ways to check how the colour will appear in the actual room.

Colour Basics

Hue – the colour

Hue is the identification of the colour grouping, e.g. yellow, blue, red or green etc. The traditional colour wheel is made up of colour families based on the visible colour spectrum; red, orange, yellow, green, blue, indigo and violet, these having intermediate colours such as turquoise (blue-green).

The colour wheel

Colours that are opposite each other on the colour wheel are called complementary colours. When these colours are combined, they produce striking contrasts. If you want calmer, less striking colour schemes, choose colours that are positioned closely together on the colour wheel, which produces an analogous scheme. Colours from the same hue group (i.e. from the same part of the colour wheel or colour group) produce monochromatic schemes.

Saturation – the richness of colour

The less saturated in colour, the duller and greyer it appears. Less saturated colour produces more muted, subtle colours.

Tone – lightness or darkness of the colour

This describes how much light is reflected from the paint and so how light or dark the colour is.

How colours affect the space

Light or pale colours open out a room and create space therefore white is an obvious choice for ceilings, as it makes the room appear higher. Colours can be perceived to vary, dependant on their adjacent colours. If colours are placed onto or next to a dark colour (such as navy), that colour will appear much lighter than if it were placed next to white. Subtle off-whites and creams can produce a more harmonious appearance. An off-white shade will also work better in older properties, where a bright white would look too modern and clinical.

Darker colours can make a room appear intimate and cosy but also make the room appear smaller. Carefully used, for example on an accent wall, darker, more intensely coloured walls can add interest and a focal point in a room.

Colours are also classified into warm or cool shades to help with colour scheming. Warmer shades; yellows, reds, oranges and browns, bring a comforting, welcoming atmosphere to a room. Colder shades such as blues, greens and greys can cool the feel of a room and are considered restful and calming.



Colours that are opposite each other on the colour wheel are called complementary colours. When these colours are combined, they produce striking contrasts.



If you want calmer, less striking colour schemes, choose colours that are positioned closely together on the colour wheel.



Colours combined with another which are next to each other on the colour wheel produce monochromatic schemes.

CHOOSING COLOUR

Lighting



How lighting affects colours

Colour exists due to the presence of light and differing light sources will alter the appearance of colours on a surface. The lighting in the room will also need taking into consideration when choosing the colours.

Crown Paints' Colour Expertise

All Crown Decorating Centres and selected Crown Paints stockists have our 'state of the art' digital colour matching equipment. This allows the accurate mixing of paint to virtually any sample provided using spectrophotometry technology. This service will provide the closest possible colour match by formulating a bespoke colour recipe – other systems can just give a match to their nearest standard colour.

Colour Literature

Our Colour Schemes and Inspiration guide features 150 of Crown Paints' most popular colours and colour scheming advice.

The Professional Painter's Colour Guide is ideal if you are working on commercial projects, giving you a handy reference to BS4800 and a selection of RAL colours.

For customers looking for more choice, Crown Trade's colour collection fandeck offers 1080 colours presented in colour families for easier selection. Individual pages are also available in Crown Trade stockists.

If historical colour authenticity is required, Crown Trade's Historic Colours brochure offers a collection of 120 colours drawn from Britain's rich tradition of architecture and design.

To order any literature please contact the Customer Relations Team on 0845 389 9583; email them: info@crowntrade.co.uk or visit our website www.crowntrade.co.uk





SCAN® is the name for Crown Paints' colour codification system, in which colours are scientifically measured and assigned a unique 6-digit SCAN® code:



LEGISLATION & REGULATION

The Regulatory Reform (Fire Safety) Order 2005 (England & Wales) and the Fire (Scotland) Act 2005

The Regulatory Reform (Fire Safety) Order 2005 (England & Wales) & the Fire (Scotland) Act 2005 underline the potential hazard of flame spread on painted surfaces as being a factor to be considered in a fire risk assessment. Replacing and simplifying a raft of previous legislation and to clarify the building owner's 'duty of care', the Government has made available via the Internet, a series of helpful guides to assist 'responsible persons' to perform their duty effectively according to the nature of the property in question. The Crown Trade Timonox range of flame retardant products has unparalleled flame retardant properties and complies with the current BS standards and new European fire test standards.

Equality Act 2010

The Disability Discrimination Act, which came into force in 1995 has now been replaced by the very much broader Equality Act of 2010. In the case of buildings, a key theme of both Acts has been to ensure inclusive environments for everyone, through legislation; the main intent of the original Act and its successor being to ensure equality of access to people with disabilities and to outlaw discrimination. An example of discrimination would be where the duty to make a 'reasonable adjustment' has not been fulfilled.

Under the new Act, the duty to make 'reasonable adjustments' arises where a disabled person might experience a 'substantial disadvantage' in fulfilling their role at work, or in accessing goods and services. Previously, adjustments to premises and to policies, practices and procedures had to be made by service providers only where it would otherwise be 'impossible or unreasonably difficult' for a disabled person to use the service. Thus the requirements of the Equality Act are more onerous and 'reasonable adjustments' potentially more extensive.

The Equality Act places duties on employers and service providers to consider barriers (physical and intangible) that disabled people might face when trying to access a service or employment.

Using colour within our interiors has many benefits. First and foremost, colour is seen as decoration; adding our personality to a space. But people often fail to realise it has many more advantages; colour helps create a mood and can aid the function of a room. Additionally, if the dimensions of a room seem out of proportion, colour can be applied to visually correct them. It is also accepted that the introduction of colour contrast into an interior design can significantly improve a visually impaired person's way-finding ability and create accessible environments to help the built environment comply with the intentions of the Equality Act.

VOC legislation

2010 saw the implementation of more changes to the VOC (Volatile Organic Compound) limits in decorative compounds. The UK legislation is based on EU directive 2004/42/EC which covers coatings applied to buildings, their trim and fittings. Most products have not changed significantly, however, solvent-borne trim, cladding paints, varnishes and woodstains have been affected to a greater extent. The British Coatings Federation is able to provide further information on this.

As a responsible manufacturer, Crown Paints supports a smooth transition to lower VOC and an example of this is Crown Trade's New Build Acrylic Gloss system which was specially developed.

REACH legislation

REACH (Registration, Evaluation, Authorisation and (Restriction) of Chemicals) Regulation (EC No. 1907/2006) was introduced by the EU for the management of substances affecting human health and the environment. The Regulation came into force on the 1st June 2007 and immediately became law in all EU member states. REACH is enforced by the HSE and manufacturers, suppliers & importers, as well as downstream users of the substances are all responsible for enforcing REACH.

BPR (Biocidal Products Regulations)

The BPR (Biocidal Products Regulations) implements the European wide Biocidal Products Directive 98/8/EEC (BPD) and covers a wide range of products including disinfectants, pest control products and preservatives. The BPD is enforced by the HSE and Trading Standards. The BPD's aims are to:

- Harmonise the European Market
- Provide a high level of protection for people, animals & the environment through the assessment of technical data

PAS2050

PAS2050 has been developed by the Carbon Trust, DEFRA and BSI. It prescribes a process for completing a detailed full product life cycle and is consistent with the research that Crown has already completed. Crown Paints has already undertaken scoping research into the products during 2008 and now PAS2050 has been released, they are undertaking product evaluation using PAS2050 methodology to establish valid product carbon footprinting in relation to its life cycles.

Visit: www.crowntrade.co.uk
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CROWN PAINTS PAINTSPEC FINDER™

The Crown Paints PaintSpec Finder™ is an online tool designed to make specifying coatings really straightforward. You can access it whenever you need to get help and information on producing the right specification for your projects:
www.crownpaintspec.co.uk

PaintSpec ™ Finder

It's not just paint.
It's personal.®

SMART MAINTENANCE

The Sustainable Smart Maintenance Asset Management Programme enables decorative maintenance requirements of individual buildings to be satisfied in a cost effective and environmentally aware manner. High Performance materials provide optimal cyclical maintenance solutions which take account of all prevailing circumstances; environmental conditions, traffic frequency, finish requirements (e.g. anti-graffiti solutions), etc. The aim is to provide a specification which extends the maintenance intervals, providing 'Best Value' and convenience for clients and building users.



SUSTAINABILITY



Crown Paints Ltd, as a responsible manufacturer, sets itself stringent targets to help achieve greater sustainability towards the future. Crown Paints has developed the concept of the earthbalance® initiative which demonstrates a commitment to focus on every aspect of a process. For example, no waste paint goes to landfill from Crown manufacturing sites. Discontinued batches or excess stock are reworked, with Whites and Magnolias processed by addition to a large volume of similar new product. If darker colours can't be re-processed, they are sold to a third party company that sells paint at all levels and can more readily incorporate small volumes of stock to their lines. Needless to say, Crown makes every effort to optimise production to reduce the need for reworking.

The focus is to 'Reduce, Reuse, Recycle' and Crown Paints has also been working diligently and proactively to meet and often exceed legislative requirements on issues such as VOC 2010 compliancy, REACH legislation, BPR (Biocidal Products Regulations) and PAS 2050.



PAINT FILM DEFECTS, CAUSE & CURE

Problem / cause	Solution
Alkaline Substrates Under damp conditions alkaline solutions can arise which can result in the decomposition of solvent-borne paint finishes (saponification).	Allow substrate to dry. Prime all bare interior surfaces with one coat of Crown Trade Alkali Resisting Sealer. Allow a minimum drying time of 16 hours in normal drying conditions.
Bittiness Contaminated paint, dusty atmosphere, substrate not clean, application tool not clean.	Rub down, recoat, ensure application tools are clean, and strain the paint.
Bleeding / stains Solvent or water-reactive stain causing discolouration of top coat - timber extractives, nicotine, tar or bitumen.	Remove as much contamination as possible, seal with Crown Trade Alkali Resisting Sealer or Crown Trade PSB Stain Block Primer or Crown Trade Aluminium Wood Primer.
Blooming Milky appearance usually on gloss paint, also a slight matting of the gloss. Cold temperatures, high humidity, moisture, during the drying process of the paint. Usually associated with winter months.	Rub down and recoat.
Blistering / Flaking Poor adhesion, occurs in damp / humid conditions.	Remove loose material and reapply ensuring that all coats are thoroughly cured before applying overcoat.
Brush Marks Heavy lines left in a brush applied paint film.	Ensure paint is brushed out evenly, use cross brush strokes and always lay off lightly. If water-based paints are used, be sure to use a synthetic type brush to reduce this effect.
Cissing Separation of paint film whilst wet – small 'craters' in paint film. Surface contamination, wax, grease, sometimes occurs when applying water-based paint over poorly prepared surfaces.	Remove as much contamination as possible, degrease, rub down and recoat. Ensure application tool is also free from contamination.

Problem / cause	Solution
<p>Corrosion Coating failures / exposure to damp conditions.</p>	<p>Remove all loose defective coating. Feather edges with an abrasive paper. Remove dust. Wash with hot water and liquid detergent solution to remove contaminants. Rinse thoroughly with clean water and allow drying. Spot prime all bare metal with one coat of Crown Trade Universal Metal Primer or Crown Trade Protective Coatings High Build Rust Inhibiting Metal Primer.</p>
<p>Cracking / Crazing Usually associated with applying a fairly brittle paint over a highly flexible layer i.e. matt over silk.</p>	<p>Rub down, correctly prime, i.e. Crown Trade Alkali Resisting Sealer and recoat. Severe instances may require lining paper.</p>
<p>Curtains, Runs, Sagging, Flootation of pigment Over application, i.e. too much paint applied unevenly.</p>	<p>Allow excessively thick areas to harden, (sometimes scraping off excess thickness will be required), rub down and recoat.</p>
<p>Efflorescence Soluble salts within the substrate are brought to the surface during the drying out of residual moisture. Normally, efflorescence has the appearance of white fluffy crystals.</p>	<p>Once all excess moisture has dried from the substrate, these effects should cease. Remove efflorescence by scraping, brushing with a stiff bristle brush or a rough, coarse sacking type material.</p>
<p>Flashing (Halo effect where 2 edges of paint meet). Losing the wet edge of the paint during application, trying to 'touch up' areas, especially sheen paints, but can occur with all paints.</p>	<p>Repaint to the nearest whole elevation, ensuring the wet edge is maintained.</p>
<p>Knots, Resin exudation Excessive resin level / content. Resinous species of timber. Solar grain (heat absorption of dark coloured finishes).</p>	<p>Remove excess resin from knots and other resinous areas with a hot air paint stripper. Wipe immediately with Methylated Spirit to remove residue. Apply two thin coats of fresh knotting.</p>

PAINT FILM DEFECTS, CAUSE & CURE

Problem / Cause	Solution
Mould or Mildew The germination of spores contaminating offending surfaces under damp / humid conditions generally occurs in bathrooms.	Remove all signs of organic growth with a stiff bristle brush and / or washing. Treat the area liberally with Crown Trade Fungicidal Solution. Steracryl Mould Inhibiting finishes can be applied where suitable to inhibit mould/mildew growth.
Orange Peel Effect Application by roller without laying the paint off with a brush (such as applying gloss to doors), Poor atomisation when spraying.	Wet abrade to smooth, recoat using correct method and adjustment.
Poor adhesion to new galvanised metalwork New, bright condition galvanised metalwork provides a surface to which paint does not readily adhere.	Wash with hot water and liquid detergent solution to remove all oil/grease and any other contaminants, frequently changing the water. Rinse thoroughly with clean water to remove all residues. Allow to dry. Pre-treat all areas to be decorated with an application of Crown Trade Protective Coatings T Wash. This pre-treatment will blacken the galvanising and confirm satisfactory surface degreasing. Apply one coat of Crown Trade Protective Coatings High Build Rust Inhibiting Metal Primer within 48 hours.
Rainspotting (pitting) Rain / water attack during the drying phase.	Rub down and recoat.
Sharp Arris Edges Poor opacity due to inadequate / insufficient paint film build over sharp profiles.	Round all sharp edges to a 1.3mm radius. Remove all dust.
Sleepy Gloss (Low sheen) Sinkage into substrate, due to insufficient primer or undercoat or on MDF, paraffin wax contamination.	For MDF use Crown Trade Grip Extreme after rubbing down, then recoat. Other surfaces may simply require recoating.
Wrinkling Application too thick, usually gloss paint layer skins over but remains wet underneath. Can also be caused by over coating before the previous layer is dry.	Allow affected areas to harden, rub down, with wet and dry abrasive paper to smooth, and recoat. Adhere to manufacturer's recommended spreading rates.

GLOSSARY OF TERMS

Adhesion	The power to adhere to a surface. Mechanical adhesion, surface profile (texture /roughness) provides a 'key'. Physical adhesion relies on the 'stickiness' of the film former to achieve satisfactory adhesion to the surface.
Alkalinity	Is found in high concentrations in new cementitious type materials (PH7-14) i.e. concrete, renders, etc which can cause problems for certain solvent-borne and water-based paints if not fully cured and dry.
Cohesion	The perfect amalgamation of all the constituent parts of paint, thus achieving film stability and integrity.
Drying	The process by which the liquid material converts into a dry film /coating. Drying processes include: <ul style="list-style-type: none">• Oxidation - Absorption of oxygen into the paint film.• Coalescence - Fusion of the emulsion polymers.• Lacquer dry - Evaporation of the solvent / thinner.• Stoving - Cured in heated ovens.• Chemical reaction - Curing e.g. two pack.
Drying Time	The length of time that elapses following the application of a coat of paint and the point at which it achieves a sufficient degree of hardness that the film cannot be disturbed.
Durability	The period of time that a coating system or decorative material will perform satisfactorily before it needs to be maintained / recoated.
Elasticity	The power to expand and contract under various conditions, (failure in this respect causes the film to crack or lose adhesion).
Fading	The colour change of a painted surface. This colour change may be due to ageing, weathering, exposure to sunlight or absorption of colour compounds into media or substrate, bleeding and lack of natural light.
Flow Level	The extent to which a coating material can flow out after application, to produce a smooth surface, free from brushmarks and other application irregularities.
Gloss Level	The degree to which a painted surface reflects light (and image).
Hardening	The power to continue hardening after the initial drying process by continuing to absorb oxygen or by catalyst curing.
Laitance	Is referred to the wet liquid surface that has dried on a concrete screed i.e. garage floor. This is often weak and powdery and must be thoroughly removed prior to decorating.
Opacity	The obliterating power or 'hiding power' of paint. Its ability to completely obscure the colour of the underlying surface.
Permeability	The ability to allow moisture vapour to escape by passing through the dry paint film / system.
Rising damp	Moisture rising by capillary action from ground level. Should have an impermeable barrier to prevent this such as a DPC (damp proof course).
Scrub Resistance	The ease, degree, or ability with which a painted surface can be scrubbed or washed without damage to the paint film.
Spreading Rate	The area covered by a given quantity of paint, varnish or decorative coating, when applied as recommended over a suitable surface. The ease of application depends on texture / porosity of surface and viscosity of paint.
Surface contamination	Anything on the surface prior to decorating that could impair the applied materials adhesion, disfigurement, drying or appearance.
Viscosity	The thickness or thinness of the liquid, i.e. consistency.
Wet Edge Time	The time lapse between a paint film being in a fluid, workable state and the time when the paint film reaches a non-fluid state, this affects its degree of flow, causing film build or 'lap' at the join between two painted areas of a surface. This 'set' time is important in all classes of paint as it affects speed and method of application.

CROWN PAINTS



The Crown Paints Family

Add your professional touch with products from The Crown Paints Family.

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By Appointment to
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