

Section V – PAINTING AND DECORATING

LIST OF CLAUSES V

BUILDING CONTROL

V.0 Compliance with the Building Regulations

GENERALLY

V.1 Colour Range
V.2 Sample Finishes
V.3
To Nil
V.4

MATERIALS

V.5 Approval of Brands and Paints Systems
V.6 Some Maker's Materials used for Coating
V.7 Delivery and Marking
V.8 Storage
V.9 Use of Materials
V.10 Malpractises
V.11 Quality Control and Testing
V.12 Nil
V.13 Remedying Defects Due to Defective Materials
V.14 Nil
V.15 Knotting
V.16 Stopping and/or Filler (see Clause V30)
V.17 White Spirits
V.18
To Nil
V.19
V.20 Masonry Paint
V.21 Emulsion Paint
V.22 Undercoat paint
V.23 Black Bituminous Paint
V.24 Primer for Concrete and Alkaline Surfaces
V.25 Primer for Aluminium
V.26 Primer for non-ferrous metals
V.27 Exterior Stain Finish for Timber
V.28 Primer for Softwood to be painted
V.29 Nil
V.30 Oil Paint of interior use in houses
V.31 High Performance Gloss Paint System
V.32 Primer for Plastic Components
V.33 Paint Finish for Galvanised Steel
V.34 Primer for iron and steel
V.35 Undercoat for interior woodwork
V.36 Nil

PREPARATION OF SURFACES

V.37 Inspection
V.38 Stopping and/or Filler
V.39 Plaster, Rendering Concrete, & Blockwork
V.40 Iron & Steel
V.41 Galvanised Steel, Zinc Sprayed Steel, and Non-Ferrous Metals
V.42 Nil
V.43 Plywood

Section V – PAINTING AND DECORATING

- V.44 Woodwork to be painted
- V.45 Woodwork to Receive a Clear or Exterior Stain Finish
- V.46 Nil

WORKMANSHIP

- V.47 Workmanship Generally
- V.48 Stirring of Material
- V.49 Manufacturer's Instructions
- V.50 Brushwork
- V.51 Priming of Joinery
- V.52 Extent of Priming to Concealed Surfaces
- V.53 Nil
- V.54 Conditions of Priming
- V.55 Coatings to be Dry
- V.56 Rubbing Down
- V.57 Differing Colours of Undercoats
- V.58 Painting in unsuitable conditions
- V.59 Protection of Wet Surfaces
- V.60 Damage to Adjoining Surfaces
- V.61 Cleanliness
- V.62 Nil
- V.63 Removal of Ironmongery
- V.64 To Nil
- V.71
- V.72 Tables of Painting and Decorating

APPENDIX A: LIST OF REFERENCES AND STANDARDS

APPENDIX B: AMENDMENTS LIST

V.0 Compliance with Materials and Workmanship with the Building Regulations

In order to demonstrate conformity with the Building Regulations (Part D; Materials and Workmanship), and with the Construction Products regulation (Regulation (EU) No.305/2011) as set out in national rules for Ireland (S.I. No.225 of 2013), The Contractor shall provide proof (a Declaration of Performance (DoP)) and (where applicable) a CE marking for all building products to be placed in the works.

The Contractor shall ensure that the product to be incorporated in the works, while complying with CPR, is fit for the use for which it is intended. The Contractor may be means of manufacturer's confirmation, or independent testing certificate.

GENERALLY

V.1 Colour Range

Painting and decorative schemes shall be carried out in colours selected by the Architect.

V.2 Sample Finishes

Prior to internal decorating, one complete wall for full height, designated by the Architect, shall be completely decorated. This decoration shall include samples of finishes to internal and external doors, frames, windows, ceilings and metalwork etc. After approval of the quality of finishes to these areas they shall be used as a standard for the work.

The Contractor shall also carry out sample finishes elsewhere if directed by the Architect.

Section V – PAINTING AND DECORATING

Any extra cost in carrying out such decoration in advance of the general work shall be deemed to have been included in the Contract Sum. The painted surfaces of the above work shall be made good and touched up as directed prior to handover.

V.3
to
V.4

Nil

MATERIALS

V.5 Approval of Brands and Paint Systems

The Contractor shall seek, in writing, approval from the Architect for all brands and systems of paint he wishes to use. Only the approved brands and systems will be allowed to be used.

The Contractor should note that generally high performance paint systems are specified and he should, when tendering, take into account any specialist requirements or application needed or recommended by the manufacturer.

V.6 Some Maker's Materials used for Coating

While materials for the works may be obtained from several makers, paint systems for a particular surface must be obtained from the same maker. (i.e. one maker's finishing coat must not be applied over another maker's undercoat.)

V.7 Delivery and Marking

All paints, varnishes, stains and other surface coatings shall be delivered in sound and sealed containers, labelled clearly by the manufacturer, the printed label or decorated container stating:-

- (i) the type of product;
- (ii) the brand name, if any;
- (iii) the use for which it is intended i.e. undercoating or finishing;
- (iv) the appropriate European, Irish and British Standard reference.
- (v) the manufacturers batch number.
- (vi) Materials order sheets for all paints, primers, etc. shall be included in the safety file.

No paints other than water based paints and bituminous paint shall be delivered in containers exceeding 5 litres capacity.

V.8 Storage

All materials shall be kept in a dry, clean store, protected from frost.

V.9 Use of Materials

The materials are to be used exactly as received from the maker in accordance with the maker's instructions and the addition of thinners, driers or other materials will only be permitted when specially required by the maker and the procedure approved by the Architect.

V.10 Malpractices

Adequate supervision during painting work must be given by the Contractor to ensure that the paint is not adulterated in any way and is used in accordance with Clause V9.

Section V – PAINTING AND DECORATING

V.11 **Quality Control and Testing**

All paint and surface finishes shall be subject to the NSAI Paint Quality Control Scheme.

The Contractor shall at all times allow access, provide facilities for sampling of materials and supply such information as may be requested in connection with the scheme to the NSAI. Where finished samples of paintwork are taken the Contractor shall be responsible for making good.

V.12 **Nil**

V.13 **Remedying Defects Due to Defective Materials**

All unsatisfactory materials shall be immediately removed from the site, and any work executed with such defective materials shall be made good by the Contractor at this own expense.

V.14 **Nil**

V.15 **Knotting**

Knotting shall comply with IS 16:1958.

V.16 **Stopping and/or Filler (see clause V30)**

Stopping and/or filler, unless otherwise specified (See Clause V30) for:-

- i. Plasterwork shall be a cellulose/gypsum based filler, ("Polyfilla" or equivalent).
- ii. Concrete or rendering shall be of similar material to the background and finished with a similar texture.
- iii. For woodwork shall be an exterior quality flexible stopper forming part of the paint system or as otherwise recommended by the paint manufacturer and approved by the Architect.

Clear finished woodwork shall be filled with exterior quality flexible filler as recommended by the paint manufacturer.

Filling grain of plywood for internal use shall be cellulose/gypsum based filler.

V.17 **White Spirit**

White spirit shall comply with BS 245:1976.

V.18 to V.19 **Nil**

V.20 **Masonry Paint**

Masonry paint for external walls and internal walls and ceilings to service blocks etc. shall be a synthetic resin solvent based paint having a drying time of 2 hours or less. It shall also be capable of withstanding rainfall 20 minutes after application and also be suitable for application to green concrete, ("Dulux All Seasons Weathershield" masonry coating or equivalent). The first coat shall be thinned in accordance with the manufacturer's instructions.

V.21 **Emulsion Paint**

Emulsion paint for interior use in houses shall be vinyl matt emulsion complying with IS 129:1964, (Dulux Vinyl Matt emulsion paint or equivalent), the first coat shall be thinned in accordance with the manufacturer's instructions.

V.22 **Undercoat Paint**

Black.

Section V – PAINTING AND DECORATING

V.23 **Black Bituminous Paint**

Black bituminous paint shall comply with BS 3416:1991, type 1, ('Rito' or 'Everbuild' Black Bituminous paints or equivalent) for general use.

V.24 **Primer for Concrete and Alkaline Surfaces**

Primer for concrete and alkaline surfaces shall be an approved solvent based primer obtained from the maker of the undercoat and finishing coat.

V.25 **Primer for Aluminium**

Primer for weathered or new aluminium shall be a approved water based acrylic zinc phosphate paint as supplied by the manufacturer of the finishing coats unless otherwise specified.

V.26 **Primer for Non-ferrous metals**

Primer coat for untreated non-ferrous metals such as copper, aluminium etc shall be, unless otherwise specified, a one coat Shellac-based primer ('Zinsser B.I.N.' or equivalent). To be applied according to the manufacturer's instructions.

V.27 **Exterior Stain Finish for Timber**

Exterior stain finish for hardwood/softwood shall be a high build two part system consisting of a preservative basecoat and 2 coats of solvent based acrylic woodstain ("Dulux Weathershield Added Durability Woodstain" or equivalent).

The system shall be approved by the Architect and the Contractor shall provide samples in the selected colours on the appropriate substrates.

V.28 **Primer for Softwood to be Painted**

Primer for exterior softwood to be painted shall be as Clause V30. Primer for interior woodwork to be painted shall be aluminium wood primer complying with BS 4756:1998.

V.29 **Nil**

V.30 **Oil Paint for interior use in houses**

Oil paints for interior use in houses shall be Hardgloss and undercoats complying with IS 32:1963.

V.31 **High Performance Gloss Paint System**

External woodwork and steelwork, where specified, shall be painted with a high performance gloss paint system giving a minimum 5 year life expectancy. The system shall be suitable for application to both woodwork and steelwork (Dulux Weathershield Exterior Gloss System or equivalent). Where used on steelwork the primer shall be as Clause V25 or as otherwise recommended by the manufacturer.

The system shall be applied as a complete system, including primer, and the manufacturer's recommendations shall be strictly adhered to in all cases.

The Contractor shall ensure that the appropriate primer is applied if necessary in the workshop or before installation of components.

V.32 **Primer for Plastic Components**

Section V – PAINTING AND DECORATING

Primer for Plastic Components shall be a 2 part etching primer suitable for the type of substrate on which it is to be used and obtained from the manufacturer of the finishing and undercoats.

V.33 **Primer for Galvanized Steel**

Paint finish and primer for galvanized steel shall be a one coat finished paint system (COTEC 3 (Galvacat) two-pack polyurethane anti-corrosion and adhesion coat or equivalent).

Preparation as Clause V40.

Application shall be 60-80 microns dry film thickness (100-130 wet), in one or two coats. Application may be by brush or spray.

V.34 **Primer for Iron and steel**

Primer for untreated iron and steel components shall be a 2 part etching primer suitable for the type of substrate on which it is to be used and obtained from the manufacturer of the finishing and undercoats.

V.35 **Undercoat for interior woodwork**

Untreated interior wood work shall be rubbed down with a fine abrasive paper, and remove all dust from the surface. Then apply 2 coats of wood primer undercoat (DULEX water-based 'Trade quick drying wood primer undercoat' or equivalent).

V.36 **Nil**

PREPARATION OF SURFACES

V.37 **Inspection**

The preparation of all surfaces must be inspected by the Architect before any coatings are applied.

V.38 **Stopping and/or Filler**

Unless otherwise described, stopping and/or filler referred to in the following clauses shall be the appropriate material described in Clause V.15.

V.39 **Plaster, Rendering Concrete and Blockwork**

All plaster or mortar splashes etc., shall be removed from plaster, rendering, concrete and blockwork by careful scraping, all holes, cracks etc., shall be stopped and the whole of the surfaces shall be brushed down to remove dust and loose material. In addition all traces of mould oil shall be removed from concrete surfaces by scrubbing with water and detergent and rinsing with clean water to remove all detergent. Surfaces must be clean, dry and free from rust or loose material prior to painting. When efflorescence has occurred or is suspected painting shall be deferred for a period as required by the Architect.

V.40 **Iron and Steel**

All rust, millscale, welding slag and flux residue, shall be removed from iron and steel surfaces by wire-brushing, scraping, hammering, flame cleaning etc.

All steel visual surface inspections will comply with IS EN ISO 8501-1:2007 and IS EN 8501-2:2007.

Section V – PAINTING AND DECORATING

V.41 Galvanised Steel, Zinc Sprayed Steel, and Non-Ferrous Metals

Surfaces of galvanised steel, zinc sprayed steel and non-ferrous metals shall be steam washed to remove all zinc salts, dirt dust and other surface contamination and allowed to dry.

After ensuring that any rust or dirt is removed, touch up any breaks in the galvanised film caused by welds etc. Apply a cold galvanising material with a zinc content of not less than 92% at a thickness 10% higher than the galvanised zinc.

Painting should be carried out within 48 hours of cleaning.

V.42 Nil

V.43 Plywood

Plywood shall be prepared in accordance with Clause V.43 as appropriate.

In addition internal surfaces to be finished with oil paint shall be filled with a cellulose/gypsum based filler to eliminate grain, rubbed down and dusted off and re-primed.

V.44 Woodwork to be Painted

Before fixing woodwork, all surfaces which will be visible after fixing shall be rubbed down and all knots and resin pockets shall be scorched back and coated with knotting. After priming and fixing, all nail holes and other imperfections shall be stopped and the whole surface shall be rubbed down and all dust brushed off.

V.45 Woodwork to Receive a Clear or Exterior Stain Finish

All holes and open joints shall be stopped and the whole surface shall be rubbed down with a fine abrasive paper, and all dust brushed off. Flush filling shall not be carried out.

V.46 Nil

WORKMANSHIP

V.47 Workmanship Generally

Workmanship generally shall be in accordance with the requirements of BS 6150:2006.

V.48 Stirring of Material

The contents of all cans and containers of all materials must be properly and thoroughly stirred before and during use and shall be suitably strained as and when necessary.

V.49 Manufacturer's Instructions

All materials shall be used strictly in accordance with the instructions issued by the manufacturers concerned.

V.50 Brushwork

Unless otherwise described all coatings shall be applied by brush. Written permission must be obtained from the Architect for the application of coatings by spray or roller where not so described and if permission is granted such application shall not result in extra cost to the Employer.

Section V – PAINTING AND DECORATING

V.51 Priming of Joinery

Joinery shall be delivered to the site unprimed unless otherwise provided for in Clause N.74, no primer shall be applied while the timber has a moisture content greater than 15% for internal joinery, and no greater than 17% for external joinery work (see clause N.4). The stores and drying room shall be of adequate size to allow for proper working space and for the proper coating and storage of primed work. Primers shall be applied as soon as possible after inspection and acceptance of the joinery by the Architect.

V.52 Extent of Priming to Concealed Surfaces

Backs of timber frames and linings shall be primed, see Clause V.26 or V.30, no other concealed surfaces of internal joinery are required to be primed.

V.53 Nil

V.54 Conditions of Priming

If, by the time that the work is to receive the succeeding coat, the priming coat has in any way deteriorated or has been damaged, the affected portions, or the whole, if necessary, shall be cleaned to remove all dirt, grease and loose matter, rubbed down and re-primed. Primer for re-priming items primed at works shall be similar to that used at works.

V.55 Coatings to be Dry

All coatings shall be allowed to dry thoroughly before succeeding coats are applied.

V.56 Rubbing Down

All undercoats for oil paints and clear finishes shall be rubbed down to smooth surface with abrasive paper and all dust removed before the succeeding coat is applied.

V.57 Differing Colours of Undercoats

Each succeeding coat of priming and undercoating paint shall be sufficiently different in colour as to be readily distinguishable.

V.58 Painting in unsuitable conditions

No coatings shall be applied to surfaces affected by wet, damp, foggy or frosty weather or other unsuitable conditions, or to any surface damp with moisture. If it is desired to proceed with painting when the temperature is below 5°C the permission of the Architect must be obtained.

V.59 Protection of Wet Surfaces

Adequate care must be taken to protect surfaces while still wet, by the use of screens and 'wet paint' signs where necessary.

V.60 Damage to Adjoining Surfaces

Care must be taken when storing materials, preparing surfaces or painting, etc., not to damage or stain other work. The Contractor shall remove all such stains, make good and touch up or replace as required by the Architect.

V.61 Cleanliness

All brushes, tools and equipment shall be kept in a clean condition and surfaces shall be clean and free from dust during painting. Painting shall not be carried out in the vicinity of other operations which might cause dust. The Contractor shall provide a suitable moveable receptacle, into which are to be placed all the liquids, slop washings, etc., which are on no account to be

Section V – PAINTING AND DECORATING

thrown down any of the gullies, manholes, sinks, lavatories, w.c.'s or any other sanitary fittings. All solid refuse or flammable residue must be removed from the site or burned.

V.62 **Nil**

V.63 **Removal of Ironmongery Etc.**

All surface fixed ironmongery, fittings, etc., except hinges shall be removed before painting and refixed on completion.

V.64
to
V.71 **Nil**

V.72 **Tables of Painting and Decorating**

In the following tables, internal and external painting and decorating, including the preparation of surfaces, are described by reference to the foregoing clauses. The reference numbers on the left of the tables are used in the subsequent descriptions.

Abbreviations

U/C = Undercoat

Fin = Finishing Coat

TABLES OF PAINTING AND DECORATING

INTERNAL (Houses only)

Ref.	Surface	Preparation	Primer	Undercoats	Finishing Coat
151	Plastered Wall and Ceilings	V.38	-	2 U/C (thinned) V.21	1 Fin Emulsion Paint Vinyl Matt (V.21)
152.	Aluminium in contact with mortar or concrete	-	-	1 U/C	Black Bituminous V.23
153.	Ends of iron, steel and galvanised work, built in	V.39 V.40	-	2 U/C	Black Bituminous V.23
154	Copper Pipes (Exposed)	V.40	V.25	2 U/C	1 Fin Oil Paint V.29
155	Iron and Steelwork (Internal)	V.39	V.25	2 U/C	1 Fin Oil Paint V.29
156	Galvanised Steel	V.40	-	-	Cotec 3 V.32
157	Aluminium	V.40	V.24	2 U/C	1 Fin Oil Paint V.25
158	Back of frames (Excl. external door and window frames)	-	Aluminium Wood V.27	-	-
159	Woodwork (excl. external door and	V.43	Aluminium Wood V.27	2 U/C V.34	1 Fin Oil paint

Section V – PAINTING AND DECORATING

	window frames)				V.29
160	Plywood faced doors	V42	Aluminium Wood V.27	2 U/C	1 Fin Oil paint V.29
161	Hardwood frames	V.44	Preservative Basecoat V.26	-	2 Fin Exterior Stain Finish V.26
162	External doors	V.43	Preservative Primer V.27	H.P. Exterior Gloss Paint system V.30	
163 To 200					

Section V – PAINTING AND DECORATING

TABLES OF PAINTING AND DECORATING

EXTERNAL

Ref.	Surface	Preparation	Primer	Undercoats	Finishing Coat
201	Plastered Walls and Ceilings	V.38	-	2 U/C (thinned) V.21	1 Fin Emulsion Paint Vinyl Matt (V.21)
152.	Aluminium in contact with mortar or concrete	-	-	1 U/C	Black Bituminous V.23
153.	Ends of iron, steel and galvanised work, built in	V.39 V.40	-	2 U/C	Black Bituminous V.23
154	Copper Pipes (Exposed)	V.40	V.25	2 U/C	1 Fin Oil Paint V.29
155	Iron and Steelwork (Internal)	V.39	V.25	2 U/C	1 Fin

Section V – PAINTING AND DECORATING

Appendix A: List of References and Standards

Item	Clause no.	Reference	Comment
1.	V15	IS 16:1958	Knotting.
2.	V17	BS 245:1976	Specification for mineral solvents (white spirit and related hydrocarbon solvents) for paints and other purposes.
3.	V21	IS 129:1964	Emulsion paints.
4.	V22	BS 3416:1991	Specification for bitumen-based coatings for cold application, suitable for use in contact with potable water.
5.	V27	BS 4756:1998	Specification for ready-mixed aluminium priming paints for wood work.
6.	V29	IS 32:1963	Hand gloss and enamel paint and appropriate undercoats.
7.	V39	IS EN ISO 8501-1:2007 IS EN ISO 8501-2:2007	Preparation of steel substrates before application of paints and related products – visual assessment of surface cleanliness. Rust grades and preparation grades of uncoated steel substrates and of steel substrates after overall removal of previous coatings. Preparation of steel substrates before application of paints and related products – visual assessment of surface cleanliness – Part 3: Preparation grades of welds, edges and other areas with surface imperfections.
7.	V46	BS 6150:2006	Painting of buildings. Code of practice.

Section V – PAINTING AND DECORATING

Appendix B: Amendment List	
Date of Amendments	Amendments
1/05/2014	This section was amended by Barry Sheils and approved by David Byrne, Senior Architect, Fingal County Council.