

EAST MIDLANDS

RESERVE FORCES AND CADETS ASSOCIATION

SECTION 2

MATERIALS AND WORKMANSHIP

Refurbishment works for toilet and shower areas.

at

Mansfield Cadet Centre,

Botany Avenue,

Mansfield,

NG18 5NG

Ben Webster – EM-EST-Refurb2022BW – June 2022

# MATERIALS AND WORKMANSHIP CLAUSES

CONTENTS

[MATERIALS AND WORKMANSHIP CLAUSES 2](#_Toc16061028)

[C40 CLEANING MASONRY AND CONCRETE PRODUCTS 4](#_Toc16061029)

[M50 RUBBER/PLASTICS/CORK/LINO/CARPET TILING/ SHEETING 5](#_Toc16061030)

[M60 PAINTING/ CLEAR FINISHING 9](#_Toc16061031)

[P31 HOLES/ CHASES/ COVERS/ SUPPORTS FOR SERVICES 32](#_Toc16061032)

[V90 ELECTRICAL SYSTEMS 33](#_Toc16061033)

[Z22 SEALANTS 36](#_Toc16061034)

[CEILING TILES 37](#_Toc16061035)

[PANEL CUBICLES 41](#_Toc16061036)

[SANITARY APPLIANCES AND FITTINGS 42](#_Toc16061037)

[HOT AND COLD WATER SUPPLY SYSTEMS 44](#_Toc16061038)

## GENERAL & MISCELLANEOUS

|  |  |
| --- | --- |
|  | Application of this Section |
|  | Whilst the Materials and Workmanship clauses are assumed not to be priceable, the Contractor shall allow for all of the obligations and liabilities imposed on him by these clauses in his prices inserted against items in Section 3 – DESCRIPTION WORKS. |
|  | Materials Goods and Workmanship |
|  | All materials and goods are to be of good sound quality, free from defects and are to be selected to be the best examples of their respective kind. Materials shall not be inferior to the latest provisions of the relevant British Standard, Euro Code or Code of Practice where these are applicable to the work described. Samples of materials and workmanship shall be provided for the Contract Administrator upon request and, if in the opinion and at the sole discretion of the Contract Administrator, are deemed unsuitable shall be removed from site or replaced at the Contractor’s expense. |
|  | Manufacturer’s Instructions |
|  | Where materials are specified by the proprietary name or name of the manufacturer, the Contractor is to comply with the manufacturer’s current printed instructions and recommendations. |
|  | Making Good |
|  | Where works involve demolition and cutting out, these must be carried out with care to reduce the amount of making good to a minimum. Unless otherwise stated, make good to match existing in all respects using materials and methods to totally match all visual characteristics and features of existing work. Leave joints between existing and new work as neatly as possible. |
|  | Carpentry & Joinery |
|  | “Ease and adjust” or “overhaul” where used with reference to the existing doors and windows shall mean adjusting joinery to easily open and close, re-hanging on new where hinges are worn, piecing in timber where existing damaged or rotted, reinforcing loose joints, hacking out and renewing all loose and missing putties, easing, oiling and adjusting all existing ironmongery (except where described to be taken off), replacing scuffed or broken parts and leaving both the joinery and existing remaining ironmongery in perfect working order upon completion, including glazing thereto. |
|  | Burning off of paintwork with naked flames will not be permitted. Chemical strip should be undertaken by skilled workmen and should not be used on carved surfaces adjoining glass, such as sashes. |
|  | Decoration Works: Application of Paints |
|  | All bare surfaces to be primed or sealed immediately after cleaning. All paints to be by AkzoNobel (Dulux Trade) unless expressly stated. |
|  | All coats of paint must be thoroughly dry before subsequent coats are applied and rubbed down with fine water-proof abrasive where necessary to achieve a smooth and even finish free from imperfections. |
|  | No painting on exterior work is to be done during wet or foggy weather or upon surfaces which are not thoroughly dry. |

# M50 RUBBER/PLASTICS/CORK/LINO/CARPET TILING/ SHEETING

## TYPE(S) OF COVERING

### 180 Vinyl sheeting

* Location: As detailed in section 3
* Base: Existing concrete and timber floors.
* Preparation: Remove existing floor coverings and adhesive apply latex to all solid floors to level before laying flooring.
* Underlay: As per manufacturer’s instructions
* Adhesive: As recommended by manufacturer below–



* Manufacturer and reference:

Polyflor Ltd,

PO Box 3,

Radcliffe New Road,

Whitefield,

Manchester,

M45 7NR

01617671111

* Type: Polyflor Polysafe vogue ultra PUR and Polysafe Hrydro
* Accessories: Threshold strips and upstand detail as required.

## GENERALLY

### 210 Workmanship generally

* All bases must be rigid, dry, sound, smooth and free from grease, dirt and other contaminants before coverings are applied.
* Finished coverings must be accurately fitted, tightly jointed, securely bonded, smooth and free from air bubbles, rippling, adhesive marks and stains.

### 250 Layout

* Agree setting out of seams before ordering roll materials for sheeting type(s) M50/170

### 330 Commencement

* Do not lay materials until building is weathertight, wet trades have finished their work, the building is well dried out, all paintwork is finished and dry, conflicting overhead work completed, and floor service outlets, duct covers and other fixtures around which the materials are to be cut have been fixed. Inform CA not less than 48 hours before commencing laying.

### 340 Conditioning

* Before laying commences thoroughly condition materials by unpacking and separating in the spaces where they are to be laid. Maintain resilient flooring rolls in an upright position, unroll carpet and keep flat on a supporting surface. Minimum conditioning time and temperature to be as recommended by manufacturer. Extend period by a factor of 2 for materials stored or transported at a temperature of less than 10°C immediately prior to laying.

### 350 Environment

* Before, during and after laying, provide adequate ventilation and maintain temperature and humidity approximately at levels which will prevail after the building is occupied.

## PREPARING BASES

### 410 Suitability of new bases and conditions

* Laying of coverings will be taken as joint acceptance by the Main Contractor and Subcontractor of the suitability of the bases and conditions within any given area.

### 420 Suitability of existing bases and conditions

* Before commencing work the subcontractor must confirm (through the Main Contractor) that existing bases will, after the specified preparation, be suitable to receive the specified coverings.
* Laying of coverings will be taken as further acceptance of the suitability of the bases and also of the conditions within any given area.

### 430 Dampness

* Where coverings are to be laid on new wet-laid bases:
	+ Ensure that drying aids have been turned off for not less than 4 days, then
	+ Test for moisture content using an accurately calibrated hygrometer in accordance with BS 5325, Annexe A or BS 8203, Annexe A.
	+ Take readings in all corners, along edges, and at various points over the area being tested.
	+ Do not lay coverings until all readings show 75% relative humidity or less.

### 440 Substrates

* The specifications for trowelled finishes to receive thin floor coverings require:
* A uniform, smooth surface free from trowel marks and other blemishes, and suitable to receive the specified floor finish material.

### 460 Smoothing underlayment compound

* Latex is recommended for the purpose by the manufacturer. Mix and lay in accordance with manufacturer's recommendations.

### 470 Existing floor covering to be removed

* Completely remove covering and as much adhesive as possible. Skim with smoothing underlayment compound to give a smooth, even surface.

### 560 Plywood underlay

* To an approved national standard.
* Finish: sanded
* Thickness: 18 mm.
* Sheet size: 2400 x 1200 mm.
* Ensure that existing floor boards are securely fixed and acceptably level. Remove or fill any gross irregularities. Punch in any protruding fasteners.
* Lay sheets with cross joints staggered such that no joint within the base and underlay is coincident and with a 0.5-1 mm gap between sheets.
* Fix with 25 mm ring shanked or twisted shank nails or divergent staples, commencing at the centre of one side of each sheet, at 150 mm grid centres over the area of each sheet and at 100 mm centres along perimeter, set in 12 mm from edge.
* Ensure that fasteners are driven well in, with heads set flush with surface, and do not project through underside of base. Remove and replace fasteners that deform while being driven.

## LAYING COVERINGS

### 640 Adhesive fixing generally

* Adhesive: when not specified otherwise, type to be as recommended by covering/underlay manufacturer as appropriate or, in the absence of such recommendation, type to be approved.
* Use a primer where recommended by adhesive manufacturer. Allow to dry thoroughly before applying adhesive.
* Spread adhesive evenly and lay covering, pressing down firmly and rolling laterally and transversely (if recommended) to ensure full contact and a good bond overall. Reroll (if recommended) within 30 minutes.
* Remove all surplus adhesive from exposed faces of coverings as the work proceeds.
* Trowel ridges and high spots caused by particles on the substrate will not be accepted.

### 720 Doorways

* Make joint on centre line of door leaf unless specified otherwise.

### 740 Edgings/cover strips

* Material/finish: Brass/aluminum as specified in Section 3
* Fix securely (using matching fasteners where exposed to view) ensuring that edge of covering is firmly gripped.

### 750 Stair nosings/trim

* Manufacturer and reference(s): Gradus
* Material/finish: Brass/aluminum as specified in Section 3
* Fix securely and level with neatly mitred joints, adjusting to suit thickness of covering with continuous packing strips of hardboard or plywood. Both packing strips and nosings must be fully bedded in gap-filling adhesive recommended by the nosing manufacturer. Screw fixing with matching plugs as required.

### 780 Traffic

* After laying, keep floor covering type(s) M50/170 & 180 free from traffic for 6 hours.

## COMPLETION

### 810 Cleaning generally

* Remove all scrap, dust and dirt. Carefully remove adhesive and other marks from coverings and adjacent surfaces, using approved cleaning agents and methods.

### 820 Finishing vinyl flooring

* Wash floor using mops dampened with water containing neutral (ph 6-9) detergent. If necessary, lightly scrub heavily soiled areas using a brush or synthetic fibre web pad.
* Thoroughly rinse with clean water, removing surplus to ensure no damage to adhesive, and allow to dry.
* Apply two coats of emulsion polish of a type recommended by covering manufacturer.

### 870 Protection

* Cover flooring with clean dust sheets, or other nonstaining suitable material to prevent damage from dirt and traffic prior to Practical Completion. Ensure any material with printed information on one face is laid with printed face uppermost.

### 880 Waste

* Retain spare covering material suitable for patching. On completion hand over to Employer pieces selected by CA.



# M60 PAINTING/ CLEAR FINISHING

**PAINT SCHEDULE**

**The information below is to identify individual Systems for building areas to be painted.**

***In order to achieve the optimum results it is extremely important to adhere to the systems and Site Work Instructions v5 quoted. Please note that AkzoNobel Decorative Paints UK will not accept responsibility for any amendments to or unauthorised usage of the wording contained in the system sheets or in the Site Work Instructions v5.***

**Prior to the start of the painting contract, Client and Painting Contractor must agree arrangements with regard to the Site Work Instructions v5 clauses listed below.**

1. Section 2: Conditions of Use Building Repairs/Prior to Paint work
2. Section 2: Conditions of Use Responsibility to Confirm Surface as Specified
3. Section 6: Colour All Clauses

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Paintable Surface** | **PS Code** | **Finish Product** | **Colour** | **Notes** |
| **Internal** |  |
| Previously painted ceilings | D151 | Dulux Trade Vinyl Matt |  | . |
| Previously painted walls. Eggshell finish | D95W | Dulux Trade Diamond Eggshell | To be selected from ProfessionalColour range |  |
| Previously painted walls. Matt finish | D261W | Dulux Trade Diamond Matt | As above |  |
| Previously painted trim. Gloss finish | D1288S | Dulux Trade Quick Dry Gloss |  | Please refer to notes regarding preparation, when overcoating previously solvent finish, surface must be rubbed down carefully to provide adequate key. |
| Previously painted trim. Satin finish | D1334S | Dulux Trade Quick Dry Satinwood |  | As above |
| Previously painted interior metalwork. | M30WTR | Dulux Trade Quick Dry Gloss |  | As above |
| Previously varnished trim. | D1094 | Dulux Trade Quick Dry Varnish |  | As above |
| Prefinished surfaces | D7009 | Appropriate Cleaner |  |  |

### IMPORTANT NOTES

*Due to the potential deterioration of the existing coatings and/or the potential deterioration of the existing substrates referred to within this project, the use of these specific project documents are limited to 24 months from their date of origination to the completion of the painting contract. It is recommended that this documentation be reviewed with AkzoNobel Decorative Paints UK when completion of the project is greater than 24 months from the date of document origination. The origination date is on the front/title page of the specification.*

I *would draw your attention to the legal declaration below. It is important to remember that these specifications provided by* ***AkzoNobel Decorative Paints UK*** *are protected by copyright and database right and are dependent in performance terms on the use of* ***AkzoNobel Decorative Paints UK*** *and colour defining references cannot be converted to what* ***appears*** *to be an equivalent system from another paint manufacturer without subsequent potential loss of performance*

|  |  |
| --- | --- |
| ***System Code*** | ***D151* Dulux Trade Vinyl Matt** |
| *Building Part* | *Ceilings, Staircase, Soffit, Staircase Stringers etc* |
| Surface Substrate: | Walls & Ceilings - Interior Plaster/Plasterboard |  | Required Finish Coat: | Dulux Trade Vinyl Matt |
| Previous Coating : | Paint (Water Based) |  | No. of Finish System Coats: | 2 |
|  |  | Data Sheet Number: | 411 |
| Surface Condition : | Defective - Light Failure / Breakdown (<20%) |  |
|  |  |
| Durability Performance : | Normal |  |
| Finish Type : | Water Based |  |
| Sheen: | Low (Flat / Matt) |  |
| Brand : | Dulux |  |
|  |  |

* Comply at all times with BS 6150: 2006 Code of Practice for Painting of Buildings (or as amended) and BS EN ISO 12944: 1998 Paints and Varnishes - Corrosion Protection of Steel Structures by Protective Paint Systems (or as amended).
* AkzoNobel Decorative Paints will not accept responsibility for any unauthorised amendments or usage of the wording contained in this System sheet and in Paint’s Site Work Instructions v5.
* In order to achieve the optimum results, it is extremely important to adhere to the systems and AkzoNobel Decorative Paint’s Site Work Instructions v5 quoted.
* Products supplied for the carrying out of this specification are compliant with Statutory Instrument 2005 No. 2773 (Environmental

Protection) - The Volatile Organic Compounds in Paints, Varnishes and Vehicle Refinishing Products Regulations 2005

#### Preparation

The amount of preparatory work required on a Previously Coated Surface can vary considerably due to a variety of circumstances. This System is for Preparation up to and including partial failure/breakdown <50%. (See AkzoNobel Decorative Paints UK Site Work Instructions v5

Condition of Surface Tables for further information.)

Thoroughly clean down the surfaces to remove all dirt grease and surface contaminants.

Remove all blistered, poorly adhering or otherwise defective coatings. Powdery and friable surface coatings should be completely removed by scraping, brushing and washing. Allow the surface to fully dry before proceeding. Where appropriate, rub down sound areas to produce the necessary 'key' for good adhesion and 'feather' broken edges of existing coatings. \*Dust off.

Note

\*When rubbing down dry and/or dusting off wear a suitable face mask to avoid the inhalation of dust.

(See AkzoNobel Decorative Paints UK Site Work Instructions v5 Clause SW4.20 for further information.)

#### Priming

If surfaces remain powdery and friable after thorough preparation, they must be sealed with: **1** coat of **Dulux Trade Stain Block Primer**.

Prime all sound bare areas and areas exposed by the removal of coatings with: **1** coat of **Dulux Trade Vinyl Matt** of appropriate shade thinned up to 1 part **Water** to **5** parts of product as appropriate.

#### Making Good

Make good cracks, holes and other imperfections with Polycell Trade Easy Sand Interior Filler. Allow such making good to dry out thoroughly. Rub down smooth to match surrounding area and \*dust off. Note

\*When rubbing down dry and/or dusting off wear a suitable face mask to avoid the inhalation of dust.

(See AkzoNobel Decorative Paints UK Site Work Instructions v5 Clause SW4.20 for further information.)

#### Bring Forward

Bring forward all making good with: **1** coat of **Dulux Trade Vinyl Matt** of selected shade thinned up to 1 part **Water** to **5** parts of product as appropriate.

#### Finishing System

**2** coats of **Dulux Trade Vinyl Matt** of selected shade.

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|  |  |
| --- | --- |
| ***System Code*** | ***D95W* Dulux Trade Diamond Eggshell** |
| *Building Part* | *General Wall Areas etc* |
| Surface Substrate: | Walls & Ceilings - Interior Plaster/Plasterboard |  | Required Finish Coat: | Dulux Trade Diamond Eggshell |
| Previous Coating : | Paint (Water Based) |  |
|  |  | No. of Finish System Coats: | 2 |
| Surface Condition : | Defective - Light Failure / Breakdown (<20%) |  |
| Data Sheet Number: | 408 |
| Durability Performance : | Normal |  |
|  |  |
| Finish Type : | Water Based |  |
| Sheen: | Mid (Satin / Silk) |  |
| Brand : | Dulux |  |
|  |  |

* Comply at all times with BS 6150: 2006 Code of Practice for Painting of Buildings (or as amended) and BS EN ISO 12944: 1998 Paints and Varnishes - Corrosion Protection of Steel Structures by Protective Paint Systems (or as amended).
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Protection) - The Volatile Organic Compounds in Paints, Varnishes and Vehicle Refinishing Products Regulations 2005

#### Preparation

The amount of preparatory work required on a Previously Coated Surface can vary considerably due to a variety of circumstances. This System is for Preparation up to and including partial failure/breakdown <50%. (See AkzoNobel Decorative Paints UK Site Work Instructions v5 Condition of Surface Tables for further information.)

Thoroughly clean down the surfaces to remove all dirt grease and surface contaminants.

Remove all blistered, poorly adhering or otherwise defective coatings. Powdery and friable surface coatings should be completely removed by scraping, brushing and washing. Allow the surface to fully dry before proceeding. Where appropriate, rub down sound areas to produce the necessary 'key' for good adhesion and 'feather' broken edges of existing coatings. \*Dust off.

Note

\*When rubbing down dry and/or dusting off wear a suitable face mask to avoid the inhalation of dust.

(See AkzoNobel Decorative Paints UK Site Work Instructions v5 Clause SW4.20 for further information.)

#### Priming

If surfaces remain powdery and friable after thorough preparation, they must be sealed with: **1** coat of **Dulux Trade Stain Block Primer**.

Prime all sound bare areas and areas exposed by the removal of coatings with: **1** coat of **Dulux Trade Diamond Eggshell** of appropriate shade thinned up to 1 part **Water** to **10** parts of product as appropriate.

#### Making Good

Make good cracks, holes and other imperfections with Polycell Trade Easy Sand Interior Filler. Allow such making good to dry out thoroughly. Rub down smooth to match surrounding area and \*dust off. Note

\*When rubbing down dry and/or dusting off wear a suitable face mask to avoid the inhalation of dust.

(See AkzoNobel Decorative Paints UK Site Work Instructions v5 Clause SW4.20 for further information.)

#### Bring Forward

Bring forward all making good with: **1** coat of **Dulux Trade Diamond Eggshell** of selected shade thinned up to 1 part **Water** to **10** parts of product as appropriate.

#### Finishing System

**2** coats of **Dulux Trade Diamond Eggshell** of selected shade.

Recommendations for the cleaning of surfaces coated with Dulux Trade Diamond technology products can be found in AkzoNobel Decorative Paints UK Site Work Instructions v5 SW 7.42.

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|  |  |
| --- | --- |
| ***System Code*** | ***D261W* Dulux Trade Diamond Matt** |
| *Building Part* | *General Wall Areas etc* |
| Surface Substrate: | Walls & Ceilings - Interior Plaster/Plasterboard |  | Required Finish Coat: | Dulux Trade Diamond Matt |
| Previous Coating : | Paint (Water Based) |  | No. of Finish System Coats: | 2 |
|  |  | Data Sheet Number: | 447 |
| Surface Condition : | Defective - Light Failure / Breakdown (<20%) |  |
|  |  |
| Durability Performance : | Normal |  |
| Finish Type : | Water Based |  |
| Sheen: | Low (Flat / Matt) |  |
| Brand : | Dulux |  |
|  |  |

* Comply at all times with BS 6150: 2006 Code of Practice for Painting of Buildings (or as amended) and BS EN ISO 12944: 1998 Paints and Varnishes - Corrosion Protection of Steel Structures by Protective Paint Systems (or as amended).
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* In order to achieve the optimum results, it is extremely important to adhere to the systems and AkzoNobel Decorative Paint’s Site Work Instructions v5 quoted.
* Products supplied for the carrying out of this specification are compliant with Statutory Instrument 2005 No. 2773 (Environmental

Protection) - The Volatile Organic Compounds in Paints, Varnishes and Vehicle Refinishing Products Regulations 2005

#### Preparation

The amount of preparatory work required on a Previously Coated Surface can vary considerably due to a variety of circumstances. This System is for Preparation up to and including partial failure/breakdown <50%. (See AkzoNobel Decorative Paints UK Site Work Instructions v5 Condition of Surface Tables for further information.)

Thoroughly clean down the surfaces to remove all dirt grease and surface contaminants.

Remove all blistered, poorly adhering or otherwise defective coatings. Powdery and friable surface coatings should be completely removed by scraping, brushing and washing. Allow the surface to fully dry before proceeding. Where appropriate, rub down sound areas to produce the necessary 'key' for good adhesion and 'feather' broken edges of existing coatings. \*Dust off.

Note

\*When rubbing down dry and/or dusting off wear a suitable face mask to avoid the inhalation of dust.

(See AkzoNobel Decorative Paints UK Site Work Instructions v5 Clause SW4.20 for further information.)

#### Priming

If surfaces remain powdery and friable after thorough preparation, they must be sealed with: **1** coat of **Dulux Trade Stain Block Primer**.

Prime all sound bare areas and areas exposed by the removal of coatings with: **1** coat of **Dulux Trade Diamond Matt** of appropriate shade thinned up to 1 part **Water** to **10** parts of product as appropriate.

#### Making Good

Make good cracks, holes and other imperfections with Polycell Trade Easy Sand Interior Filler. Allow such making good to dry out thoroughly. Rub down smooth to match surrounding area and \*dust off. Note

\*When rubbing down dry and/or dusting off wear a suitable face mask to avoid the inhalation of dust.

(See AkzoNobel Decorative Paints UK Site Work Instructions v5 Clause SW4.20 for further information.)

#### Bring Forward

Bring forward all making good with: **1** coat of **Dulux Trade Diamond Matt** of selected shade thinned up to 1 part **Water** to **10** parts of product as appropriate.

#### Finishing System

**2** coats of **Dulux Trade Diamond Matt** of selected shade.

Recommendations for the cleaning of surfaces coated with Dulux Trade Diamond technology products can be found in AkzoNobel Decorative Paints UK Site Work Instructions v5 SW 7.42.

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|  |  |
| --- | --- |
| ***System Code*** | ***D1288S* Dulux Trade Quick Dry Gloss** |
| *Building Part* | *Internal painted trim etc* |
| Surface Substrate: | Wood - Internal Non Resinous Softwood / Hardwood |  | Required Finish Coat: | Dulux Trade Quick Dry Gloss |
| Previous Coating : | Paint (Solvent Based) |  | No. of Finish System Coats: | 2 |
|  |  | Data Sheet Number: | 550 |
| Surface Condition : | Defective - Light Failure / Breakdown (<20%) |  |
|  |  |
| Durability Performance : | Normal |  |
| Finish Type : | Water Based |  |
| Sheen: | High (Gloss) |  |
| Brand : | Dulux |  |
|  |  |

* Comply at all times with BS 6150: 2006 Code of Practice for Painting of Buildings (or as amended) and BS EN ISO 12944: 1998 Paints and Varnishes - Corrosion Protection of Steel Structures by Protective Paint Systems (or as amended).
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* In order to achieve the optimum results, it is extremely important to adhere to the systems and AkzoNobel Decorative Paint’s Site Work Instructions v5 quoted.
* Products supplied for the carrying out of this specification are compliant with Statutory Instrument 2005 No. 2773 (Environmental

Protection) - The Volatile Organic Compounds in Paints, Varnishes and Vehicle Refinishing Products Regulations 2005

#### Preparation

The amount of preparatory work required on a Previously Coated Surface can vary considerably due to a variety of circumstances. This System is for Preparation up to and including partial failure/breakdown <50%. (See AkzoNobel Decorative Paints UK Site Work Instructions v5

Condition of Surface Tables for further information.)

Completely remove all blistered, poorly adhering or otherwise defective coatings. Open-up all joints which are not tight fitting and rake out thoroughly. Wash down remaining areas in good condition with soap and water, detergent solution or suitable solvent to remove all dirt, grease and surface contaminants, rinse off and allow to dry. **Rub down overall to provide a 'key' (this is particularly important when applying water based systems to previous coatings that are known, or suspected to be, solvent based) and 'feather' broken edges of existing coatings.** \*Dust off. Note

\*When rubbing down dry and/or dusting off wear a suitable face mask to avoid the inhalation of dust.

(See AkzoNobel Decorative Paints UK Site Work Instructions v5 Clause SW4.20 for further information.)

Apply two thin coats of a knotting solution,appropriate for use under a water based undercoat,to all knots and resinous areas and allow to harden. Ensure all surfaces are fully dry before proceeding.

#### Priming

Spot prime any bare metal, metal fixings nail heads etc with: **1** coat of **Dulux Trade All Purpose Primer**.

Prime all bare areas and areas exposed by the removal of coatings with **1** coat of **Dulux Trade Quick Dry Undercoat**.

Prime overall with: **1** coat of **Dulux Trade Quick Dry Undercoat**

Priming overall with this coating is essential as it acts as a 'tie' coat between the previously solvent based and the new water based system.

#### Making Good

Make good all nail-holes, open joints and open grain etc. with a Polycell Trade filler appropriate to the surface and according to the manufacturer's instructions. Allow making good to dry before being rubbed down smooth and \*dusted off.

Fillers

Use only good quality/compatible materials and follow the manufacturers' recommendations for use, even if at variance with this system.

Note

\*When rubbing down dry and/or dusting off wear a suitable face mask to avoid the inhalation of dust. (See AkzoNobel Decorative Paints UK Site Work Instructions v5 Clause SW4.20 for further information.)

NOTE Linseed oil putty is not suitable for use under woodstains, varnishes or water based systems.

#### Finishing System

**2** coats of **Dulux Trade Quick Dry Gloss** of selected shade.

Where a strong change of colour is required, additional finishing coats may be necessary.

Note

As with other water based paints, do not use when the temperature is below 10 degrees Centigrade, or when the surface temperature is below 7 degrees Centigrade as this will affect the drying process. See AkzoNobel Decorative Paints UK Site Work Instructions v5 for further guidance.

**Important Note :**

We recommend to carefully denib between the finishing coats using a fine grade nylon abrasive pad or a fine grade (P240 or finer) wet or dry silicone carbide abrasive paper. Remove all dust.

For best results use a good quality synthetic brush.

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|  |  |
| --- | --- |
| ***System Code*** | ***D1334S* Dulux Trade Quick Dry Satinwood** |
| *Building Part* | *Internal painted trim etc* |
| Surface Substrate: | Wood - Internal MDFWood - Internal Non Resinous Softwood / Hardwood |  | Required Finish Coat: | Dulux Trade Quick Dry Satinwood |
| Previous Coating : | Paint (Solvent Based) |  | No. of Finish System Coats: | 2 |
| Surface Condition : | Defective - Light Failure / Breakdown (<20%) |  | Data Sheet Number: | 551 |
|  |  |  |
| Durability Performance : | Normal |  |  |
| Finish Type : | Water Based |  |
| Sheen: | Mid (Satin / Silk) |  |
| Brand : | Dulux |  |
|  |  |

* Comply at all times with BS 6150: 2006 Code of Practice for Painting of Buildings (or as amended) and BS EN ISO 12944: 1998 Paints and Varnishes - Corrosion Protection of Steel Structures by Protective Paint Systems (or as amended).
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* Products supplied for the carrying out of this specification are compliant with Statutory Instrument 2005 No. 2773 (Environmental

Protection) - The Volatile Organic Compounds in Paints, Varnishes and Vehicle Refinishing Products Regulations 2005

#### Preparation

The amount of preparatory work required on a Previously Coated Surface can vary considerably due to a variety of circumstances. This System is for Preparation up to and including partial failure/breakdown <50%. (See AkzoNobel Decorative Paints UK Site Work Instructions v5 Condition of Surface Tables for further information.)

Completely remove all blistered, poorly adhering or otherwise defective coatings. Open-up all joints which are not tight fitting and rake out thoroughly. Wash down remaining areas in good condition with soap and water, detergent solution or suitable solvent to remove all dirt, grease and surface contaminants, rinse off and allow to dry**. Rub down overall to provide a 'key' (this is particularly important when applying water based systems to previous coatings that are known, or suspected to be, solvent based) and 'feather' broken edges of existing coatings**. \*Dust off. Note

\*When rubbing down dry and/or dusting off wear a suitable face mask to avoid the inhalation of dust.

(See AkzoNobel Decorative Paints UK Site Work Instructions v5 Clause SW4.20 for further information.)

Apply two thin coats of a knotting solution,appropriate for use under a water based undercoat,to all knots and resinous areas and allow to harden. Ensure all surfaces are fully dry before proceeding.

#### Priming

Spot prime any bare metal, metal fixings nail heads etc with: **1** coat of **Dulux Trade All Purpose Primer**.

Prime all bare areas with: **1** coat(s) of **Dulux Trade Quick Dry Satinwood**.

#### Making Good

Make good all nail-holes, open joints and open grain etc. with a Polycell Trade filler appropriate to the surface and according to the manufacturer's instructions. Allow making good to dry before being rubbed down smooth and \*dusted off.

Fillers

Use only good quality/compatible materials and follow the manufacturers' recommendations for use, even if at variance with this system.

Note

\*When rubbing down dry and/or dusting off wear a suitable face mask to avoid the inhalation of dust.

(See AkzoNobel Decorative Paints UK Site Work Instructions v5 Clause SW4.20 for further information.)

**Bring Forward**

Bring forward all primed and made good areas with: **1** coat of **Dulux Trade Quick Dry Satinwood** of appropriate shade.

#### Finishing System

**2** coats of **Dulux Trade Quick Dry Satinwood** of selected shade.

For best results use a good quality synthetic brush.

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| ***System Code*** | ***M30WTR* Dulux Trade Quick Dry Gloss** |
| *Building Part* | *General Metalwork* |
| Surface Substrate: | Metal - Ferrous (Iron & Steel) (Internal) |  | Required Finish Coat: | Dulux Trade Quick Dry Gloss |
| Previous Coating : | Paint (Solvent Based) Paint (Water Based) |  | No. of Finish System Coats: | 3 |
| Data Sheet Number: | 550 |
| Surface Condition : | Defective - Light Failure / Breakdown (<20%) |  |  |  |
| Durability Performance : | Normal |  |
| Finish Type : | Water Based |  |
| Sheen: | High (Gloss) |  |
| Brand : | Dulux |  |
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* Comply at all times with BS 6150: 2006 Code of Practice for Painting of Buildings (or as amended) and BS EN ISO 12944: 1998 Paints and Varnishes - Corrosion Protection of Steel Structures by Protective Paint Systems (or as amended).
* AkzoNobel Decorative Paints will not accept responsibility for any unauthorised amendments or usage of the wording contained in this System sheet and in Paint’s Site Work Instructions v5.
* In order to achieve the optimum results, it is extremely important to adhere to the systems and AkzoNobel Decorative Paint’s Site Work Instructions v5 quoted.
* Products supplied for the carrying out of this specification are compliant with Statutory Instrument 2005 No. 2773 (Environmental

Protection) - The Volatile Organic Compounds in Paints, Varnishes and Vehicle Refinishing Products Regulations 2005

#### Preparation

Thoroughly clean down to remove all surface contamination. Carefully scrape back to a firm edge all areas of defective paint coatings and rub down to 'feather' the broken edges. Scrape and wire brush corroded steel to produce a clean metal surface. Rub down with a suitable abrasive and \*dust off. All manually prepared surfaces should be prepared to a minimum standard of St3. BS EN ISO 8501-1: 2007 at the time of coating. Note

\*When rubbing down dry and/or dusting off wear a suitable face mask to avoid the inhalation of dust.

(See AkzoNobel Decorative Paints UK Site Work Instructions v5 Clause SW4.20 for further information.)

#### Priming

Prime all bare metal with: **1** coat of **Dulux Trade Metalshield Zinc Phosphate Primer** applied to give a minimum wet film thickness of **150** microns giving a minimum dry film thickness of **65** microns.

#### Bring Forward

Bring forward all primed areas with: **1** coat of **Dulux Trade Quick Dry Undercoat** applied to give a minimum wet film thickness of **85** microns giving a minimum dry film thickness of **30** microns.

#### Finishing System

1. coat of **Dulux Trade Quick Dry Undercoat** applied to give a minimum wet film thickness of **85** microns giving a minimum dry film thickness of **30** microns.
2. coat of **Dulux Trade Quick Dry Gloss** applied to give a minimum wet film thickness of **100** microns giving a minimum dry film thickness of **40** microns.

Where a strong change of colour is required, additional finishing coats may be necessary.

Note

As with other water based paints, do not use when the temperature is below 10 degrees Centigrade, or when the surface temperature is below 7 degrees Centigrade as this will affect the drying process. See AkzoNobel Decorative Paints UK Site Work Instructions v5 for further guidance.

For best results use a good quality synthetic brush.

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| ***System Code*** | ***D1094* Dulux Trade Quick Dry Varnish** |
| *Building Part* | *Previously varnished surfaces etc* |
| Surface Substrate: | Wood - Internal Non Resinous Softwood / Hardwood |  | Required Finish Coat: | Dulux Trade Quick Dry Varnish |
| Previous Coating : | Preservative, Woodstain or dye Varnish |  |
| No. of Finish System Coats: | 2 |
| Surface Condition : | Defective - Light Failure / Breakdown (<20%) |  | Data Sheet Number: | 604 |
|  |  |  |
| Durability Performance : | Normal |  |  |
| Finish Type : | Water Based |  |
| Sheen: | Mid (Satin / Silk) High (Gloss) |  |
| Brand : | Dulux |  |
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* + Comply at all times with BS 6150: 2006 Code of Practice for Painting of Buildings (or as amended) and BS EN ISO 12944: 1998 Paints and Varnishes - Corrosion Protection of Steel Structures by Protective Paint Systems (or as amended).
	+ AkzoNobel Decorative Paints will not accept responsibility for any unauthorised amendments or usage of the wording contained in this System sheet and in Paint’s Site Work Instructions v5.
	+ In order to achieve the optimum results, it is extremely important to adhere to the systems and AkzoNobel Decorative Paint’s Site Work Instructions v5 quoted.
	+ Products supplied for the carrying out of this specification are compliant with Statutory Instrument 2005 No. 2773 (Environmental

Protection) - The Volatile Organic Compounds in Paints, Varnishes and Vehicle Refinishing Products Regulations 2005

#### Preparation

The amount of preparatory work required on a Previously Coated Surface can vary considerably due to a variety of circumstances. This System is for Preparation up to and including partial failure/breakdown <50%. (See AkzoNobel Decorative Paints UK Site Work Instructions v5

Condition of Surface Tables for further information.)

Completely remove all blistered, poorly adhering or otherwise defective coatings. Open-up all joints which are not tight fitting and rake out thoroughly. Wash down remaining areas in good condition with soap and water, detergent solution or suitable solvent to remove all dirt, grease and surface contaminants, rinse off and allow to dry. Rub down overall to provide a 'key' (this is particularly important when applying water based systems to previous coatings that are known, or suspected to be, solvent based) and 'feather' broken edges of existing coatings. \*Dust off.

Note

\*When rubbing down dry and/or dusting off wear a suitable face mask to avoid the inhalation of dust.

(See AkzoNobel Decorative Paints UK Site Work Instructions v5 Clause SW4.20 for further information.)

If required, touch in any primed areas with **Dulux Trade Quick Dry Varnish** to match the surrounding timber for colour and build. Allow to dry.

#### Priming

Prime all bare areas and areas exposed by the removal of coatings with **1** coat of **Dulux Trade Quick Dry Varnish**. (clear only)

#### Making Good

Make good all nail holes (nails must be punched below the surface.), open joints and open grain with a suitable stopper / filler designed for use with a woodstain or varnish system. Allow the material to set before rubbing down and \*dusting off.

Fillers & Stoppers

Use only good quality/compatible materials and follow the manufacturers' recommendations for use, even if at variance with this system.

Note

\*When rubbing down dry and/or dusting off wear a suitable face mask to avoid the inhalation of dust. (See AkzoNobel Decorative Paints UK Site Work Instructions v5 Clause SW4.20 for further information.)

NOTE Linseed oil putty is not suitable for use under woodstains, varnishes or water based systems.

#### Finishing System

**2** coats of **Dulux Trade Quick Dry Varnish** of selected shade.

(Gloss or Satin)

Guidance on depth of colour (Quick Drying Varnish) Clear Finish: Apply two finishing coats of clear satin or gloss.

Translucent Colour: Apply one coat (Satin Only) of colour followed by one coat of clear (satin or gloss). Deeper Colour: Apply two coats of colour. (Satin Only) Note:

With any semi-transparent coating the finished appearance will be influenced by the number of coats applied and the absorbency, texture, colour and general condition of the existing surface or previous coating.

#### Application Guidance

Note: To ensure an even colour and/or sheen gently stir the varnish at regular intervals during application.

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| ***System Code*** | ***D7009*** |
| *Building Part* | *General Plastic and pre-finished surfaces.* |
| Surface Substrate: | Plastic - General (External) |  | Required Finish Coat: | Appropriate Cleaner |
| Previous Coating : | None / New |  | No. of Finish System Coats: |  |
| Surface Condition : | Good (New uncoated) |  | Data Sheet Number: |  |
|  |  |  |
| Durability Performance : | Normal |  |  |
| Finish Type : | Cleaning Only |  |
| Sheen: |  |  |
| Brand : |  |

* Comply at all times with BS 6150: 2006 Code of Practice for Painting of Buildings (or as amended) and BS EN ISO 12944: 1998 Paints and Varnishes - Corrosion Protection of Steel Structures by Protective Paint Systems (or as amended).
* AkzoNobel Decorative Paints will not accept responsibility for any unauthorised amendments or usage of the wording contained in this System sheet and in Paint’s Site Work Instructions v5.
* In order to achieve the optimum results, it is extremely important to adhere to the systems and AkzoNobel Decorative Paint’s Site Work Instructions v5 quoted.
* Products supplied for the carrying out of this specification are compliant with Statutory Instrument 2005 No. 2773 (Environmental

Protection) - The Volatile Organic Compounds in Paints, Varnishes and Vehicle Refinishing Products Regulations 2005

#### Preparation

Wash down the surfaces to remove all dirt, grease and other surface contaminants with soap and water or detergent solution, finishing with an appropriate UPVC cleaner to produce a clean surface free from stains or smearing.

Rinse off and, if necessary, leather off to produce a clean, dry surface free from watermarks or smearing.

#### Finishing System

This system is for **Appropriate Cleaner**.

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| Site Work Instruction | **AkzoNobel Decorative Paints UK Site Work Instructions v5 - 2015** |
| **Clause Reference** | **Section 1: Manufacturer and Brand Information** |
| **SW 1.01** | **Manufacturer Details**AkzoNobel Decorative Paints UKWexham RoadSloughBerkshireSL2 5DS |
| **SW 1.02** | **Materials Specified**The materials specified in our system sheets are from **Dulux Trade, Armstead Trade**, **Cuprinol**, **Hammerite,****Sikkens** and **Polycell Trade**Product Information Sheets and Safety Data Sheets are obtainable via www.duluxtrade.co.uk, AkzoNobel Distributors or the Technical Advice Centre by telephone on 03332 227070. |
| **SW 1.04** | **Repair Care Systems Limited.**Some materials specified in our system sheets are from **Repair Care International Limited.** ProductInformation Sheets and Safety Data Sheets are obtainable via AkzoNobel Distributors, the Technical AdviceCentre by telephone on 03332 227070, or by contacting Repair Care International Limited directly on 01827 –302517. Further information is available via [www.repair-care.com](http://www.repair-care.com/) |
| **SW 1.05** | **Wallcoverings – Manufacturer Guidance** AkzoNobel do not manufacture wallcoverings. The wallcovering manufacturers' advice should be sought at all times. |
| **Clause Reference** | **Section 2: Information on Conditions of Use** |
| **SW 2.01** | **Use of Specified Products**Coating materials to be obtained from the manufacturer and specified brand where indicated. It is not permissible to substitute the indicated brand. It is the responsibility of the painting contractor to familiarise him/her with these materials. |
| **SW 2.02** | **AkzoNobel Decorative Paints UK Systems**The ‘**PaintSpec** Systems are for Professional use only and are offered as a service to Specifiers & Contractors who require access to painting systems and represent the most commonly recommended painting specifications in the U.K. A ‘Bespoke’ Specification Service is available across the U.K. to Professional Specifiers & Contractors by contacting Dulux Trade Technical Advice Centre, AkzoNobel, Wexham Road, Slough, Berkshire SL2 5DS. Tel: 03332 227070. AkzoNobel will not accept responsibility for any unauthorised amendments or usage of the wording contained in the System sheets or in these Site Work Instructions v5. In order to achieve the optimum results it is important to adhere to the Systems and Site Work Instructions quoted. |
| **SW 2.03** | **Relevant Code of Practice**Care and attention must be employed when using the systems and the relevant British Code of Practice must also be complied with. BS 6150: 2006 Code of Practice for Painting of Buildings (or as amended) and BS EN ISO 12944: 1998 Paints and Varnishes - Corrosion Protection of Steel Structures by Protective Paint Systems (or as amended). |
| **SW 2.04** | **Relevant Information Sheets and Instructions to be Retained on Site**A copy of all the System sheets, Product Information, Health and Safety Information and Site Work Instructions supplied must be retained on site during the contract period for easy reference by site and visiting personnel. |
| **SW2.05** | **Building Repairs / Prior to Paint work**Prior to the start of the painting contract the Client and the Painting Contractor must agree arrangements with regard to repair work. Prior to Painting repairs to substrates which are to be coated must be undertaken by the Clients' choice of Contractor in advance of the expected painting start date. The aforementioned substrates must be dry in depth (where applicable) and have been accepted by both parties as in a suitable condition to paint. The notification procedures when, during the painting contract, a painter discovers damaged or missing substrates requiring replacement, must be in place and be clearly understood. The aforementioned replacement of substrate must be identified as **not** part of the painting contract and must therefore be undertaken by the Clients' choice of Contractor. |

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|  | **AkzoNobel Decorative Paints UK Site Work Instructions v5 - 2015** |
| **Clause Reference** | **Section 2: Information on Conditions of Use** |
| **SW2.06** | **Responsibility to Confirm Surface as Specified**It is expected of the **Painting Contractor** that he ensures/confirms that the surface to be painted is ‘as described’ in the System Sheet he is given. If the existing coating is not ‘as described’ (e.g. the existing coating is Solvent Based and not Water Based or the substrate is Galvanised Metal & not Ferrous Metal) then it is the **Painting Contractor’s** responsibility to report back to the Client and to then be instructed which alternative System Sheet to use. |
| **SW 2.07** | **Instructions Provided Separately**Any instructions provided separately must be used in conjunction with the documents supplied. |
| **SW 2.08** | **Full Extent of Work**Contractors must satisfy themselves as to the full extent of the work to be carried out, whether mentioned in the documents or otherwise. |
| **SW 2.09** | **Measurements and Close Inspection**Measurements and close inspection must be made to enable accurate preparation of tenders. |
| **SW 2.10** | **Representative Access** AkzoNobel Representatives must be allowed free access to the work and any access equipment (ladders etc.) shall be provided by the Contractor immediately on request. The actual percentage of properties or work inspected and recorded will have been agreed with the client prior to commencement of the contract. |
| **SW 2.20** | **COSHH Assessment**The contractor must carry out a full assessment of Risk as required under COSHH Regulations 1994, (or as amended) before commencing work. |
| **SW 2.21** | **Preparation of Surfaces / Sequence of Work**The contractor must adhere to the detailed preparation of surfaces and sequence of work as laid down in these documents. |
| **SW 2.22** | **Conditions Suitable/Unsuitable for Painting**Most coatings are dependent on the evaporation of the solvent or thinner at the initial drying stage. High or Low Temperature and/or High Humidity will affect coating application and can permanently affect the coating’s performance. It is therefore recommended that application is not carried out when the temperature falls below 5 degrees centigrade (Solvent borne) or 8 degrees centigrade (Water borne) or when the relative humidity exceeds 80%. Consideration must also be taken regarding the temperature of thesurface to which the coating is to be applied. Refer to **BS 6150: 2006 Code of Practice for Painting of Buildings** (or as amended) for further guidance. |
| **SW 2.23** | **Personal Protection**Work in well ventilated areas. Use suitable personal protective equipment (respiratory, eye and skin), as necessary. Treatments for the removal of surface coatings (such as sanding, burning off, use of chemicals) may generate hazardous dust and/or fumes. Manufacturers advice should be followed at all times. |
| **SW 2.24** | **Log of Ambient Conditions**Keep a log of ambient conditions during the course of the work in line with BS 6150 and ISO 12944: 1998Paints and Varnishes - Corrosion Protection of Steel Structures by Protective Paint Systems (or as amended). |
| **SW 2.25** | **Storage**Extremes of temperature and humidity during storage must be avoided. |
| **SW 2.26** | **Accurate Logs and Records of Materials and Surfaces**Log all batch numbers and deliveries of materials used and the surface to which they are applied. |
| **SW 2.27** | **Materials to be Thoroughly Mixed and Stirred**All materials must be thoroughly mixed or stirred before use unless otherwise directed and used in accordance with instructions from AkzoNobel Decorative Paints UK. |
| **SW 2.28** | **Inspection of First Coats**First coats must not be applied until the surfaces have been inspected by the client and/or his/her agent. |

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|  | **AkzoNobel Decorative Paints UK Site Work Instructions v5 - 2015** |
| **Clause Reference** | **Section 2: Information on Conditions of Use** |
| **SW 2.29** | **Inspection of Undercoats / Finishing Coats**No undercoats or finishing coats must be applied until the previous coat has been similarly inspected and approved by the client and/or his/her agent. |
| **SW 2.30** | **Effects on Foodstuffs / Commencing Food Operations**Where coating systems are quoted, the user must ensure that they have no harmful effects on the operatives or foodstuffs. Before re-starting to use foods or raw food materials, or before commencing any food handling operation, the client or his authorised representative must satisfy himself/herself that the area is thoroughly clean and free from odour and clear of all painting materials. |
| **SW 2.31** | **Documentation – Time Limitation**Due to the potential deterioration of the existing coatings and/or the potential deterioration of the existing substrates referred to within this project, the use of these specific project documents are limited to twenty four months from their date of origination to the completion of the painting contract. It is recommended that this documentation be reviewed with the originator when completion of the project is greater than twenty - four months from the date of document origination. AkzoNobel Decorative Paints UK will not accept responsibility for any documentation relating to a project that exceeds this twenty - four period unless the documentation has been reviewed and approved by an AkzoNobel representative. |
| **SW 2.32** | **Volatile Organic Compounds**Products supplied for the carrying out of this specification are compliant with Statutory Instrument 2005 No. 2773 (Environmental Protection) - The Volatile Organic Compounds in Paints, Varnishes and Vehicle Refinishing Products Regulations 2005. |
| **SW 3.10** | **Walls –Areas of use**The systems for Walls and Ceilings are suitable for **Internal** Plaster, Render, Block, Approved Brick and Concrete, Plasterboards, Paperfaced boards, Cement boards, Calcium Silicate boards and Fibre Insulation type boards and **External** Render, Pebbledash, Tyrolean, Block, Approved Brick, Concrete, Cement Boards and Calcium Silicate Boards |
| **SW 3.11** | **Walls – Cleaning & Repairing**See BS 8221:2000 Code of Practice for Cleaning and Surface Repair of Buildings (or as amended). This gives guidance on cleaning natural stones, brick, terracotta and concrete. |
| **SW 3.31** | **Wood – Resin & Knots**When encountering knots and resinous areas to be painted, apply two thin coats of a suitable KnottingSolution and allow to harden. For further guidance re knot content etc please refer to BS EN 942 |
| **SW3.38** | **Wood – Moisture Content**The moisture content of the timber should not exceed 18% for exterior use and 14% for interior use. |
| **Clause Reference** | **Section 4: Preparation** |
| **SW 4.01** | **Painted Finishes / BS Code of Practice**The whole of the painted surfaces shall be finished in accordance with **BS 6150: 2006 Code of Practice for Painting of Buildings** (or as amended) and additional requirements quoted.The surfaces coated should exhibit a fair and even surface of constant colour, substantially free of brushmarks, fatty edges etc. Each coat shall be allowed to harden and rubbed down before the next coat is applied. |
| **SW 4.10** | **Dampness**No materials should be applied to surfaces that are structurally or superficially damp. All surfaces must be free from condensation, dirt etc before and during treatment. To prevent the re-occurrence of condensation, ensure that there is suitable ventilation. |
| **SW 4.12** | **Internal Mould Growth**Mould growth on internal surfaces must be treated prior to the application of any subsequent paint coating. Surfaces which are contaminated with mould should be scraped to remove all heavy deposits before being treated with **'Dulux' Weathershield Multi-Surface Fungicidal Wash.** (By brush only). After 24 hours rinse off and allow to dry. A second treatment is sometimes required. Ensure all surfaces are fully dry before proceeding. **Caution****'Dulux' Weathershield Multi-Surface Fungicidal Wash** contains Disodium Octaborate and Benzalkonium Chloride. Read the label before you buy. Use pesticides safely. Fungicidal Wash should not be allowed to come into contact with foodstuffs. |
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| **SW 4.20** | **Rubbing Down & Dusting Off**When rubbing down use a wet flatting process. Where it is not possible or practical to use a wet process, wear a suitable face mask when rubbing down dry and/or dusting off to avoid the inhalation of dust. When it is known or suspected that coatings contain lead refer to Clause SW 4.22 for further information. When preparing wood, wire wool and metallic brushes must not be used. |
| **SW 4.22** | **Lead in Previous Coatings**All AkzoNobel paints are free from any added lead. However, the wood and metal surfaces of the building, especially if it is pre-1960, may have been decorated in the past with a paint made with lead pigments. Preparation and removal of such paint can be hazardous. For a free leaflet explaining how the surface should be prepared safely contact: AkzoNobel Technical Group: AkzoNobel, Wexham Road, Slough SL2 5DS. Tel: 03332 227070 |
| **SW 4.23** | **Fire Protection Systems**Where surfaces have been previously treated with fire retardant, check with the treatment manufacturer that the specified coating materials are compatible, and do not inhibit its performance. Inform the client of any discrepancy in coating system details and obtain instructions before proceeding with application. |
| **SW 4.30** | **Friable / Powdery Surfaces**Friable or powdery surfaces must be treated with the primer most suited to the substrate prior to the application of any subsequent compatible coating. |
| **SW 4.31** | **Opening edges / Undersides of Sills**Ensure that doors and opening windows, etc., are 'eased' as necessary before coating. All opening edges of doors and windows and undersides of sills are included in the painting work. |
| **SW 4.51** | **Polycell Trade Fillers**For precise application, completion and storage guidance please refer to the product packaging or product data sheet. |
| **SW 4.60** | **Off Site Preparation**All off site preparation and coating to be carried out under cover in a suitable environment with adequate lighting. |
| **SW 4.70** | **Proper Storage**Store all items, both before and after coating, in a clean, dry area protected from the weather and mechanical damage, properly stacked with spaces to permit air circulation and prevent sticking of surfaces. |
| **SW 4.80** | **Oil and Grease Contaminated Surfaces**For surfaces contaminated with dirt, oil and grease, use an appropriate ‘Oil & Grease Remover’ in accordance with the Manufacturers instructions for use. |
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| **Clause Reference** | **Section 5: Application** |
| **SW 5.01** | **Suitability of Primers**All primers must be appropriate for the surface and for subsequent coats. |
| **SW 5.02** | **Staining / Suitable Primers**Contaminated areas that are likely to cause staining, must be treated with the primer most suited to the type of stain encountered prior to the application of any subsequent compatible coating.Determine the type of stain and thoroughly clean down the surfaces to remove dirt, grease etc. Rub down with a suitable abrasive and \*dust off. \*When rubbing down dry and/or dusting off wear a suitable face mask to prevent the inhalation of dust. See Clause SW 4.20 for further information.Prime the affected area with the most appropriate 'sealer' for the staining encountered.**'Dulux' Trade Stain Block Plus** (Water Based) for sealing inks, caffeine, biro and scuffs etc.**'Dulux' Trade Aluminium Wood Primer** (Solvent Based) for sealing aged-creosote, bitumen, soot, tar and smoke etc.**'Dulux' Trade Alkali Resisting Primer** (Solvent Based) for sealing a wide variety of stains, including water staining.**'Armstead' Primecoat Primer Sealer** (Solvent Based) for sealing a wide variety of stains, including water staining. |
| **SW 5.22** | **Application of Finishing Coat**No coatings shall be left in an exposed or unsuitable situation for an undue period before applying the finishing coat. |
| **SW 5.31** | **Application Methods**Refer to **BS 6150: 2006 Code of Practice for Painting of Buildings Section 9.3 Application Methods Page 103** All methods of application are comprehensively dealt with in this Section. |

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|  | **AkzoNobel Decorative Paints UK Site Work Instructions v5 - 2015** |
| **Clause Reference** | **Section 6: Colour** |
| **SW 6.01** | **Good Working Practice When Using Colour**Before application, ensure that all materials are from the same batch. (See Clause SW 2.26). If mixed batch tins are purchased they should be 'boxed' to avoid potential colour variation. 'Boxing' requires the mixing together of the different batches in a larger container to ensure consistency of colour. Colour variation can occur when purchasing a colour for a project from a variety of sources rather than from one source and/or location. The risk of colour variation, can be reduced by taking the following action:1. Avoid using a mixture of ready mixed colour and in store tinted colour
2. Avoid using a variety of batch numbers whether ready mixed or in store tinted. For the purpose of instore tinted colour a batch is considered to be materials tinted on one machine at the same time.
3. Purchase sufficient material for the project at one time from the same source of supply tinted on the same tinting machine. Where this is not appropriate due to storage restrictions, the supplying merchant may be able to store sufficient quantities in store for call off when required.

It is good working practice to hold back sufficient original material to 'touch up' any areas of damage to the paint film prior to completion. With some paints and / or colours, especially products with mid or high sheen and / or deep colours, it may be necessary to recoat the whole area to avoid noticeable differences in film appearance for example under acute lighting conditions. |
| **SW 6.02** | **Selection of Colours and Finishes/Trial Areas/Additional Coats**All colours and finishes to be selected and approved by the client or client’s agent. Provision must be made for the execution of patterns or trial areas on site if required. In general, the quantity of finishing coats specified are based on ‘as existing’ colours and finish types. Allowance must be made for any deviation from the standard specification. Additional coats may need to be applied should the client or client’s agent select colours as described in Clause SW 6.04. AkzoNobel will not accept responsibility for the cost of the application of additional coats when the originator of the documentation (for example an AkzoNobel Representative) has not been informed of the colour schedule prior to origination of the project documentation. |
| **SW 6.03** | **Specified - “As Existing” Colour**Many specifications are written on the basis of the finish colour being 'As Existing'. Provision must be made by the successful Contactor, with the Client, to confirm and agree the ‘actual’ colours to be applied before application. Should a change of colour be instructed, then agreement must be reached by all parties as to the possible need for additional coats and the cost significance of such action. (See all other Clauses on Colour for further guidance.) |
| **SW 6.04** | **Special Processes Colours**When any colour is to be used on rough surfaces, or where a marked change of colour is to be made, an amended process may be required and the finishing system for that surface amended to include the additional coats necessary. The finishing system for a surface that is to be significantly lighter than the previous colour (e.g. from Black to White) may also need to be amended to include the application of further coats of finish or the use of different colours or products as undercoats prior to finishing. Some strong colours, such as Poppy and Monarch in the revised BS4800 range, NCS colours with a colour intensity of 60 or more and also some Colour Palette colours as detailed below, cannot be made with the same hiding power as ordinary colours if they are to have satisfactory durability and purity of colour and therefore may require extra coats to be applied to achieve full opacity. These strong colours, known as 'Special Process Colours' are identified as such in colour cards from the supplying stockists or the Trade Technical Advice Centre (see below) with specific instruction on how many coats to apply to achieve full opacity. Some of this information will also be given on the can labels. This may involve the application of further coats of finish or the use of different colours or products as undercoats prior to finishing.Refer to **BS 6150: 2006 Code of Practice for Painting of Buildings** Appendix B: Paint Colours (or as amended). See relevant colour card for further guidance. **Colour Guidance**NCS: All colours with a colour intensity of 60 or more. e.g. (10**60**-Y10R).Colour Palette: BB, RB, BG colours with chroma value >350.Colour Palette: YY, YR, GY colours with chroma value >450.Colour Palette: RR, GG colours with chroma value >400. e.g. (45YY 71/**664**). |

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|  | **AkzoNobel Decorative Paints UK Site Work Instructions v5 - 2015** |
| **Clause Reference** | **Section 7: Operation and Maintenance** |
| **SW 7.00** | **Yellowing/Discolouration of Solvent-borne Finishes**Solvent-borne finishes tend to yellow in situations where direct daylight is excluded.This is more obvious with white and light – coloured finishes. If freedom from yellowing is important, contact: AkzoNobel Technical Group: AkzoNobel, Wexham Road, Slough SL2 5DS. Tel: 03332 227070 for guidance on selection of oil-free coatings. |
| **SW 7.01** | **Chemical Resistance**In a coating system each resin, (Alkyds, Acrylated Rubbers, Epoxies, etc.) will behave in a different way when exposed to other chemicals. Care must be taken to ensure that the system selected has the best resistance to the chemicals it will be exposed to once it has been applied. |
| **SW 7.10** | **Durability in High Wear Areas**An extra coat of the finishing material is recommended to improve durability in high wear/traffic areas such as doors and handrails. |
| **SW 7.20** | **Cleaning Specified Surfaces / Removal of Paint Splashes**Where instructions are given not to paint, and to wash or dust clean, this work must be undertaken prior to painting surrounding areas and should be left clean and free from paint splashes. |
| **SW 7.30** | **Cleaning Interior of Rainwater Goods**Clean out interior of all gutters, rainwater heads etc.Thoroughly clean down the surfaces to remove all dirt grease and surface contaminants**.** |
| **SW 7.40** | **Cleaning Maintenance for Internal Walls Finished in Conventional Water Based Paints**Where possible the surface should be lightly brushed or dusted to remove dust etc. When more intense cleaning is required, gently wash down the surface using a soft sponge and mild detergent solution to remove dirt and light marking. Heavy pressure should be avoided to reduce the level of polishing or burnishing of the painted surface. Gently clean down with clean water and remove any excess water to avoid staring or streaking. Abrasive Cleaners and coarse cloths should not be used. |
| **SW 7.42** | **Cleaning Maintenance for Internal Walls Finished in Diamond Technology Water Based Paints**Common stains can be removed by cleaning promptly with a soft cloth and clean soapy water. Allow to dry. Vigorous scrubbing and the use of abrasive cleaners or scourers may impair the finish. Only apply enough pressure to remove marks. Oil based stains and marks from some pens/felt tips/permanent markers may not be completely removed. Full durability develops 7 days after initial application. For information about removing specific stains, please phone AkzoNobel Technical Group on 03332 227070. |

# P31 HOLES/ CHASES/ COVERS/ SUPPORTS FOR SERVICES

### 150 Holes and chases in in situ concrete

* Cast in: Holes larger than 10 mm diameter and chases.
* Cutting and drilling:
	+ Permitted for holes not larger than 10 mm diameter.
	+ Not permitted for holes larger than 10 mm diameter except as indicated on drawings.

### 170 Holes in structural steelwork

* Cutting and drilling: Not permitted except as indicated on drawings.

### 185 Holes, recesses and chases in masonry

* Locations: To maintain integrity of strength, stability and sound resistance of construction.
* Sizes: Minimum needed to accommodate services.
	+ Holes (maximum): 300 x 300 mm.
* Walls of hollow or cellular blocks: Do not chase.
* Walls of other materials:
	+ Vertical chases: No deeper than one third of single leaf thickness, excluding finishes.
	+ Horizontal or raking chases: No longer than 1 m. No deeper than one sixth of the single leaf thickness, excluding finishes.
* Chases and recesses: Do not set back to back. Offset by a clear distance at least equal to the wall thickness.
* Cutting: Do not cut until mortar is fully set. Cut carefully and neatly. Avoid spalling, cracking and other damage to surrounding structure.

### 230 Notches and holes in structural timber

* General: Avoid if possible.
* Sizes: Minimum needed to accommodate services.
* Position: Do not locate near knots or other defects.
* Notches and holes in same joist: Minimum 100 mm apart horizontally.
* Notches in joists: Locate at top. Form by sawing down to a drilled hole.
	+ Depth (maximum): 0.125 x joist depth.
	+ Distance from supports: Between 0.07 and 0.25 x span.
* Holes in joists: Locate on neutral axis.
	+ Diameter (maximum): 0.25 x joist depth.
	+ Centres (minimum): 3 x diameter of largest hole.
	+ Distance from supports: Between 0.25 and 0.4 of span.
* Notches in roof rafters, struts and columns: Not permitted.
* Holes in struts and columns: Locate on neutral axis.
	+ Diameter (maximum): 0.25 x minimum width of member.
	+ Centres (minimum): 3 x diameter of largest hole.
	+ Distance from ends: Between 0.25 and 0.4 of span.

# V90 ELECTRICAL SYSTEMS

## GENERAL

### 20 Design of low voltage electrical installation generally

* Design and detailing: Complete for the electrical installation.
* Standards: In accordance with BS 7671 and the requirements of the electricity distributor.
* Design information: Submit calculations, manufacturer's literature and drawings showing equipment positions and routes.

### 24 Design of general lighting system

* Purpose: Reuse existing points and cabling, whilst allowing for the removal of emergency bulkhead luminaires. All controls to remain as existing.
* Design and detailing: Complete for the general lighting system.
* Standard: To SLL 'Code for lighting'.
* Maintenance: Submit proposals for the maintenance/ relamping regime.

### 26 Design and lighting calculations

* Design: Complete for the following lighting systems: All systems to achieve 100 lux.
* Proposals: Submit drawings, technical information, calculations and manufacturers’ literature.
* Submit the following:
	+ Luminaire layout drawings (if installations are different from the tender package).

### 28 Controls

* All controls to remain as existing

### 29 Work to existing systems:

* Remove parts of the installation and revise circuit supply connections. Provide circuit identification labels to all new devices and of circuits reconnected. Examine and validate the identity of circuits to be revised. Report any discrepancies to the PM for action as instructed.

## PRODUCTS

### 30 Products generally

* Standard: To BS 7671.
* CE Marking: Required.

### 39 Cables

* Approval: British Approvals Service for Cables (BASEC) certified.
* Cable sizes not stated: Submit proposals and calculations.
* Systems: Select wiring and support systems to have zero potential for halogen release in fire:
* Multicore power cables:
* Indoor: BS 7211.
* External and underground: BS 6724.
* WIRING SUPPORTS: continuous support by fixing to building surfaces using conduit or trunking and in concealed voids, steel cable tray or steel trunking. Loose laying or direct fixing of wiring is not permitted.

### 40 Protective conductors

* Type: Cable conductors with yellow/ green sheath.

### 41 Electrical accessories: New Switches and faceplates

* Standards:
	+ Generally: To BS 5733.
	+ Switches: To BS EN 60669-1.

### 45 Luminaires

* Standards: To BS EN 60598-1 and BS EN 55015.
* Manufacturer: JCC
* Product reference: As per section 3 Description of Works.
* Mounting: Ceiling

## EXECUTION

### 60 General execution

* Standard: In accordance with BS 7671.
* Power distribution: Separately controlled circuits with further subdivision where necessary to ensure compliance with BS 7671:2008 (Requirements for Electrical Installations).
* Where due to alteration two different colour code standards exist within the building provide a permanent colour printed notice affixed to the origin of the circuit to denote this fact

### 63 Installing conduit and fittings

* Fixing: Fix securely. Fix boxes independently of conduit.
* Drainage outlets: Locate at lowest points in conduit installed externally, and where condensation may occur.
* Location: Position vertically and horizontally in line with equipment served, and parallel with building lines. Locate where accessible.
* Jointing:
* Number of joints: Minimize.
* Lengths of conduit: Maximize.
* Cut ends: Remove burrs, and plug during building works.
* Movement joints in structure: Manufactured expansion coupling.
* Threaded steel conduits: Tightly screw to ensure electrical continuity, with no thread showing.
* Conduit connections to boxes and items of equipment, other than those with threaded entries: Earthing coupling/ male brass bush and protective conductor.
* Changes of direction: Site machine-formed bends, junction boxes and proprietary components. Do not use elbows or tees. Alternatively, use conduit boxes.
* Connections to boxes, trunking, equipment and accessories: Screwed couplings, adaptors, connectors and glands, with rubber bushes at open ends.

### 66 Cable routes

* Cables generally: Conceal wherever possible.
* Concealed cable runs to wall switches and outlets: Align vertically with the accessory.
* Exposed cable runs: Submit proposals.
* Orientation: Straight, vertical and/ or horizontal and parallel to walls.
* Distance from other services running parallel: 150 mm minimum.
* Heating pipes: Position cables below.

### 70 Installing final connections

* Size: Determine.
* Cable: Heat resisting white flex.
* Length: Allow for equipment removal and maintenance.

### 72 Installing luminaires

* Location: As shown on drawings.
* Supports: Adequate for weight of luminaire.
* Locations: Submit proposals.

### 74 Equipment labelling

* Electrical equipment: Install labels indicating purpose.
* Voltage warning notices:
	+ Location: Apply to equipment when the voltage exceeds 230 V.
	+ Format: To BS EN ISO 7010 W012, include warnings of the voltage present.
	+ Distribution boards: Card circuit chart within a reusable clear plastic cover. Fit to the inside of each unit. Include typed information identifying the outgoing circuit references, their device rating, cable type, size, circuit location and details. Label each outgoing way corresponding to the circuit chart.
	+ Sub-main cables: Label at both ends, with circuit reference using proprietary cable marker sleeves.

### 78 Final fix

* Accessory faceplates, luminaires and other equipment: Fit after completion of building painting.

### 79 Cleaning

* Electrical equipment: Clean immediately before handover.
* Equipment not supplied but installed under the electrical works: Clean immediately before handover.

### 80 Earthing

* Standards: To BS 7671.
* Liaise with the Electricity Supply Authority as necessary to ensure suitability of supply and earthing arrangement, and to ensure connection when required.
* Installation work to be carried out by qualified electricians fully conversant with the IEE Wiring Regulations.
* Accessories necessary to complete the installation to be types recommended for the purpose by relevant equipment manufacturer.
* Fasteners: Avoid contact between dissimilar metals. Use corrosion resisting fastenings in locations where moisture may occur.
* In locations where excessive heat is present or may occur, use appropriate derating factors for equipment.
* Comply with restrictions on the cutting of holes, chases, notches, etc. specified in section P31.
* Fire Stopping:
* Fill all penetrations through walls to maintain the fire integrity of the wall and the appearance of the finished wall, provide sleeves as required. The filling medium is to be robust, capable of removal and re-application for future wiring works.

## COMPLETION

### 85 Inspection and testing generally

* Standard: In accordance with BS 7671.
* Notice before commencing tests (minimum): 24 hours.
* Labels and signs: Fix securely before system is tested.
* Certificates: Submit.
* Number of copies: 4.

### 89 Maintenance

Servicing and maintenance: Provide All details of servicing and maintenance for each product as part of the Health and Safety file submission

# Z22 SEALANTS

### 110 Sealants

* Classification: As specified in the relevant section.

### 120 Suitability of joints

* Pre-sealing checks:
	+ Joint dimensions: Within limits specified for the sealant.
	+ Substrate quality: Surfaces regular, undamaged and stable.
	+ Joints not fit to receive sealant: Submit proposals for rectification.

### 130 Preparing joints

* Surfaces to which sealant must adhere:
	+ Remove temporary coatings, tapes, loosely adhering material, dust, oil, grease, surface water and contaminants that may affect bond.
	+ Clean using materials and methods recommended by sealant manufacturer.
* Vulnerable surfaces adjacent to joints: Mask to prevent staining or smearing with primer or sealant.
* Primer, backing strip,. bond breaker: Types recommended by sealant manufacturer.
	+ Backing strip and/ or bond breaker installation: Insert into joint to correct depth, without stretching or twisting, leaving no gaps.
* Protection: Keep joints clean and protect from damage until sealant is applied.

### 160 Applying sealants

* Substrate: Dry (unless recommended otherwise) and unaffected by frost, ice or snow.
* Environmental conditions: Mix and apply primers and sealants within temperature and humidity ranges recommended by manufacturers. Do not dry or raise temperature of joints by heating.
* Sealant application: Unless shown otherwise on drawings, fill joints completely and neatly, ensuring firm adhesion to substrates.
* Sealant profiles:
	+ Butt and lap joints: Slightly concave.
	+ Fillet joints: Flat or slightly convex.
* Protection: Protect finished joints from contamination or damage until sealant has cured.

# CEILING TILES

GENERAL

Cross-reference

General: Read with A90 General technical requirements.

PRODUCTS

Suspended ceiling components

Standard: To BS EN 13964.

• Aluminium sheet, strip and plate: To BS EN 485.

• Aluminium bars, tubes and sections: To BS EN 573, BS EN 755, and BS EN 12020.

Softwood edge battens

Standard: To BS EN 942.

• Moisture content at time of fixing: 15% ± 2%.

EXECUTION

Setting out

General:

A continuous and even surface, jointed (where applicable) at regular intervals. Infill and access units, integrated services: Fitted correctly and aligned.

Edge/ Perimeter infill units size (minimum): Half standard width or length.

Corner infill units size (minimum): Half standard width and length.

Grid: Position to suit infill unit sizes. Allow for permitted deviations from nominal sizes of infill units.

Infill joints and exposed suspension members: Straight, aligned and parallel to walls, unless specified otherwise.

Suitability of construction: Give notice where building elements and features to which the ceiling systems relate are not square, straight or level.

Protection

Loading: Do not apply loads for which the suspension system is not designed.

Ceiling materials: When necessary, remove and replace correctly using special tools and clean gloves, etc. as appropriate.

Installing hangers

Wire hangers: Straighten and tension before use.

Installation: Install vertical or near vertical without bends or kinks. Do not allow hangers to press against fittings, services, or insulation covering ducts/ pipes.

Obstructions: Where obstructions prevent vertical installation, either:

• Brace diagonal hangers against lateral movement; or

• Hang ceiling system on an appropriate rigid sub-grid bridging across obstructions and supported to prevent lateral movement.

Extra hangers: Provide as necessary to carry additional loads.

Fixing:

• Wire hangers: Tie securely at top with tight bends to loops to prevent vertical movement.

• Angle/ Strap hangers: Do not use rivets for top fixing.

Installing perimeter trims

Jointing: Neat and accurate, without lipping or twisting.

• External and internal corners: Mitre joints.

• Intermediate butt joints: Minimize. Use longest available lengths of trim. Align adjacent lengths.

Fixing: Fix firmly to perimeter wall, edge battens or other building structure.

Exposed grids

Main runners: Install level. Adjust with supporting hangers taut. Do not kink or bend hangers.

• Spliced joints: Stagger.

• Wire hangers passing through main runners: Sharply bend and tightly wrapped loops.

• Angle/ Strap hangers: Do not use rivets for bottom fixing.

• Angular displacement of long axis of one runner in relation to next runner in line with it: Not visually apparent.

Cross members supported by main runners or other cross members: Install perpendicular to intersecting runners.

Cross tees: Flat and coplanar with flanges of main runners after panel insertion:

• Cross tees over 600 mm long, cut and resting on perimeter trim: Provide an additional hanger.

Holding down clips: Locate to manufacturer's recommendations.

• Fire protecting/ resisting ceiling systems: Use clip type featured in the fire test/ assessment.

Concealed grids

Primary support channels: Install level. Do not kink or bend hangers.

• Wire hangers wrapped around primary channels: Twice wrapped. Loops tightly formed.

• Angle/ Strap hangers: Do not use rivets for bottom fixing.

Splines: Locate between infill units to assist levelling of adjacent units and to resist air movement at joints.

Spring-tee grids: Do not omit primary channel.

Installing mineral infill units

General:

• Perimeter infill units: Trimmed, as necessary, to fully fill space between last grid member and perimeter trim. Prevent subsequent movement.

• Deeply textured infill units: Minimize variations in apparent texture and colour. In particular, avoid patchiness.

Concealed grids: Install infill units uniformly, straight and aligned. Avoid dimension creep.

• Infill units around recessed luminaries and similar openings: Prevent movement and displacement.

Installing metal infill units

Sound absorbing pads: Fit to prevent upward air movement through infill units. Cut or fold pads in cut perimeter infill units to full unit size. Reseal cut pads.

Perimeter infill units: Firmly wedge cut units into perimeter trim, or clip down.

Openings in ceiling materials

General: Neat and accurate. To suit sizes and edge details of fittings. Do not distort ceiling system.

Integrated services

General: Position services accurately, support adequately. Align and level in relation to the ceiling and suspension system. Do not diminish performance of ceiling system.

Small fittings: Support with rigid backing boards or other suitable means. Do not damage or distort the ceiling.

• Surface spread of flame rating of additional supporting material: Not less than ceiling material.

Services outlets:

• Supported by ceiling system: Provide additional hangers.

• Independently supported: Provide flanges to support ceiling system.

Ceiling mounted luminaires

Support:

• Independently supported luminaires: Suspension adjusted to line and level of ceiling.

• Ceiling supported luminaires: Do not inhibit designed grid expansion in fire.

Modular fluorescent recessed luminaires: Compatible with ceiling module. Extension boxes must not foul ceiling system.

Recessed rows of luminaires: Provide flanges for support of grid and infill units, unless mounted above grid flanges. Retain in position with lateral restraint.

Fire protecting/ resisting ceiling systems: Luminaires must not diminish protection integrity of ceiling system.

Access: Provide access for maintenance of luminaires.

Mechanical services

Fan coil units:

• Inlet and outlet grilles: Trim ceiling grid and infill units to suit.

• Space beneath: Sufficient for ceiling system components.

• Suspension and connections: Permit accurate setting out and levelling of fan coil units.

Air grilles and diffusers:

• Setting out: Accurate and level.

• Linear air diffusers: Retain in place with lateral restraint. Provide flanges for support of grid and infill units.

• Grille/ Diffuser ceiling joints: Provide smudge rings and edge seals.

Smoke detectors and PA speakers:

• Ceiling infill units: Scribe and trim to suit.

• Flexible connections: Required.

Sprinkler heads: Carefully set out and level.

Installing insulation

Fitting: Fit accurately and firmly with butted joints and no gaps.

Insulation within individual infill units: Fit closely. Secure to prevent displacement when infill units are installed or subsequently

lifted.

• Dustproof sleeving: Reseal, if cut.

Width: Lay insulation in the widest practical widths to suit grid member spacings.

Services: Do not cover electrical cables that have not been sized accordingly. Cut insulation carefully around electrical fittings, etc.

Do not lay insulation over luminaires.

Sloping and vertical areas of ceiling system: Fasten insulation to prevent displacement.

Ceiling systems intended for fire protection

Junctions of ceiling systems with perimeter abutments and service penetrations: Seal gaps with tightly packed mineral wool or intumescent sealant to prevent penetration of smoke and flame.

Ceiling system/ Wall junctions: Maintain protective value of ceiling system.

• Fixings and grounds: Noncombustible.

• Metal trim: Provide for thermal expansion.

Access and access panels: Maintain continuity of fire protection.

# SANITARY APPLIANCES AND FITTINGS

GENERAL

Cross-reference

General: Read with A90 General technical requirements.

PRODUCTS

Baths

Acrylic baths: To BS 4305-1.

Pressed steel baths: To BS 1390.

Enamelled cast iron baths: To BS 1189.

Bidets

Pedestal bidets: To BS EN 35 and BS 5505-3.

Wall hung bidets: To BS EN 36 and BS 5505-3.

Disabled user WC package

Type approval certificate: Submit.

Jointing and bedding compounds

Types: Recommended by manufacturers of appliances/ accessories/ pipes being jointed or bedded.

Sealant for pointing

To BS EN ISO 11600.

Shower units

Shower units: To BS 6340-1, -2, -4 and -5, -6, -7 or -8 and BS EN 251.

• Glazed screens: Either safety glass, Class 3 to BS EN 12600, or safety plastics, Class C to BS 6206.

Shower hoses: To BS EN 1113.

Sinks

Fireclay sinks: To BS 1206.

Kitchen sinks: To BS EN 13310.

Urinals and cisterns

Rimless vitreous china bowl urinals: To BS 5520.

Automatic flushing urinal cisterns: To BS 1876.

Wash basins

Fireclay and vitreous china: To BS 1188.

Wash basins: To BS 5506-3.

Connecting dimensions for basins:

• Pedestal wash basins: To BS EN 31.

• Wall hung wash basins: To BS EN 32.

• Wall hung hand rinse basins: To BS EN 111.

Wastes and traps

To BS EN 274-1, -2 and -3.

WCs and cisterns

General: To DEFRA WC suite performance specification or approved by relevant water company.

Pan: To BS EN 33 and BS EN 997 for close coupled pans and BS EN 37 and BS EN 997 for pans with independent water supply.

Seat and cover (where not specified otherwise): To BS 1254.

Pan connector: To BS 5627.

Cisterns (replacement only): To BS 1125 or BS 7357.

EXECUTION

Installation generally

Assembly and fixing: Surfaces designed to falls to drain as intended.

Fasteners: Nonferrous or stainless steel.

Supply and discharge pipework: Fix before appliances.

Appliances:

• Fix securely to structure. Do not support on pipework.

• Do not use or stand on appliances.

Noggings, bearers, etc. to support sanitary appliances and fittings: Position accurately. Fix securely.

Jointing and bedding compounds: Recommended by manufacturers of appliances, accessories and pipes being jointed or bedded.

On completion: Components and accessories working correctly with no leaks.

Labels and stickers: Remove.

Installing cisterns

Cistern operating components: Obtain from cistern manufacturer.

• Float operated valve: Matched to pressure of water supply.

Overflow pipe: Fix to falls and locate to give visible warning of discharge.

• Location: Agreed, where not shown on drawings

Installing taps

Fixing: Securely against twisting.

Seal with appliance: Watertight.

Positioning: Hot tap to left of cold tap as viewed by user of appliance.

Installing wastes and overflows

Bedding: Waterproof jointing compound.

Fixing: With resilient washer between appliance and backnut.

Installing WC pans

Floor mounted pans: Screw fix and fit cover caps over screw heads. Do not use mortar or other beddings.

Seat and cover: Stable when raised.

Tiled backgrounds other than splashbacks

Timing: Complete before fixing appliances.

Fixing appliances: Do not overstress tiles.

# HOT AND COLD WATER SUPPLY SYSTEMS

GENERAL

Cross-reference

General: Read with A90 General technical requirements.

Design and detailing by contractor

Standard: To BS 6700 or BS EN 806-2.

PRODUCTS

Equipment

Solar collectors: To BS EN 12975-1 and -2.

Controls: To BS EN 60730-1, BS EN 60730-2-1 and -2-9. Instantaneous water heaters – gas: To BS EN 26.

Instantaneous water heaters and shower units – electric: To BS EN 60335-2-35, BEAB approved and/ or accepted by water supply undertaker.

Storage water heaters – gas: To BS EN 89.

Storage water heaters – electric: To BS EN 60335-2-21, BEAB approved and/ or accepted by water supply undertaker.

Cisterns

Nonpotable water storage and feed & expansion tanks: With removable cover.

• Moulded plastics: To BS 4213.

• Grp: To BS EN 13280.

Potable water storage: To BS 7181, insulated with secured cover, screened air inlet and screened warning pipe termination assembly.

• Moulded plastics: To BS 4213.

Cistern valves: Float operated diaphragm type to BS 1212-2 or -3.

• Float: Plastics to BS 2456 size to suit water pressure.

Hot water storage cylinders

Direct: To BS 1566-1, Kitemark certified.

Double feed indirect: To BS 1566-1, Kitemark certified.

Single feed indirect: To BS 1566-2, Kitemark certified.

Separate insulating jacket: To BS 5615.

Insulated combination units

Standard: To BS 3198, Kitemark certified.

Combination units for hot and cold water linked to a boiler: Provide a feed and expansion cistern unless integral cistern included.

Indirectly heated unvented hot water storage

Standard: To BS EN 12897.

Immersion heaters

Standard: To BS EN 60335-2-73, BEAB approved.

Metal flue pipes

Standard: To BS 715 for gas fired appliances.

Copper pipe and fittings

Tube: To BS EN 1057, Kitemark certified.

General use: Half hard temper R250.

General use wall thickness (nominal):

• 6, 8, 10 and 12 mm pipes: 0.6 mm.

• 15 mm pipes: 0.7 mm.

• 22 and 28 mm pipes: 0.9 mm.

• 35 and 42 mm pipes: 1.2 mm.

Underground use: Soft coil temper R220 or half hard temper R250.

Underground use wall thickness (nominal):

• 6, 8, 10 and 12 mm pipes: 0.8 mm.

• 15 mm pipes: 1.0 mm.

• 22 and 28 mm pipes: 1.2 mm.

• 35 and 42 mm pipes: 1.5 mm.

Capillary fittings: To BS EN 1254-1, Kitemark certified.

Compression fittings: To BS EN 1254-2, Kitemark certified.

Fittings with threaded ends: To BS EN 1254-4, Kitemark certified.

Plastics coated copper pipelines for use below ground:

• Coating: Seamless polyethylene, to BS 3412.

Chromium plated copper pipe

Tube: To BS EN 1057, Kitemark certified, half hard temper R250.

• Finish: Chromium plate, to BS EN 12540, service condition 2.

Wall thickness (nominal):

• 6, 8, 10 and 12 mm pipes: 0.6 mm.

• 15 mm pipes: 0.7 mm.

• 22 and 28 mm pipes: 0.9 mm.

• 35 and 42 mm pipes: 1.2 mm.

Compression fittings: To BS EN 1254-2, Kitemark certified, Type A.

• Finish: Chromium plate to BS EN 12540, service condition 3.

Fittings with threaded ends: To BS EN 1254-4, Kitemark certified.

Stainless steel pipe

Tube: To BS EN 10312.

Fluxes containing chlorides or borides: Not permitted.

Thermoplastics pipe and fittings

Polybutylene (PB): To BS 7291-1 and BS 7291-2, or Water Regulations Advisory Scheme (WRAS) approved and Agrément

certified.

Cross-linked polyethylene (PE-X): To BS 7291-1 and BS 7291-3, or Water Regulations Advisory Scheme (WRAS) approved and

Agrément certified.

Polyethylene pipe for use below ground

Tube: Blue polyethylene to BS 6572, Kitemark certified (superseded but remains current) or BS EN 12201-2.

• Jointing: Compression fittings to BS EN 12201-3.

Pipeline insulation

Material: Preformed flexible closed cell or mineral fibre split tube.

• Thermal conductivity: 0.04 W/m·K (maximum).

• Fire performance: Class 1 spread of flame to BS 476-7.

Timers and thermostats

Standards: To relevant parts of BS EN 60730 and C, BEAB approved.

Valves

Generally: Approved by local water supply undertaker and of appropriate pressure and/ or temperature ratings.

For isolation control: With handwheels.

For isolation and regulation: With lockshields.

Ball valves: To BS EN 331.

Stop valves and draw-off taps for above ground use: Copper alloy to BS 1010-2, Kitemark certified.

Stop valves for below ground use: DZR copper alloy CZ 132 to BS 5433.

Gate valves: Copper alloy to BS 5154, Series B, Kitemark certified or BS EN 12288.

Double check valve assemblies: Copper alloy check valves to BS 6282-1 with intervening test cock to BS 2879.

Draining taps: Copper alloy to BS 2879, Type 1, hose connection pattern, Kitemark certified.

Gas plug cocks: To BS 1552.

EXECUTION

Hot and cold water services for domestic use

Standard: To BS 6700.

Gas services

Standard: To BS 6891.

Installation generally

Performance: Free from leaks and audible effects of expansion, vibration and water hammer.

Fixing of equipment, components and accessories: Secure, parallel or perpendicular to building structure.

Preparation: Clear debris and projections before installing tanks and cisterns on floors or platforms.

Corrosion resistance: Use corrosion resistant fittings/ fixings and avoid contact between dissimilar metals.

Dezincification

Fittings used below ground or in concealed or inaccessible locations: Gunmetal or another material resistant to dezincification.

Flue pipe

Joints and bends: Minimize number.

Slope: Not more than 30° from the vertical.

Joints:

• Sockets: Uppermost.

• Supports: Fully supported and fixed securely with brackets supplied for the purpose.

• Sealing: Gas-tight, in accordance with manufacturer's instructions.

• Joints within floor void: Not permitted.

Expansion and contraction: Accommodate thermal movement.

Fire safety: Locate a safe distance from combustible materials.

Roof junction: Weatherproof.

Balanced flue terminal

Opening in external wall: Submit proposals for position.

Flue guard: Required if flue may be touched.

Cisterns

Outlet positions: 30 mm (minimum) above bottom.

Access clear space:

• Cistern does not exceed 450 mm in any dimension: 225 mm (minimum) above.

• Cistern does exceed 450 mm in any dimension: 350 mm (minimum) above.

Warning/ overflow pipes to cisterns

Normal water level and overflow level difference (minimum):

• Cold water storage cisterns: The greater of 32 mm or the bore of warning pipe.

• Feed and expansion cisterns: To allow 20% increase in the volume of water plus 25 mm.

Supply inlet above overflow level: Bore of warning pipe (minimum).

Fall: 1 in 10 (minimum).

Support: To prevent sagging.

Exposed end: Prominent position with turned down end.

Cistern end: Turned down to terminate 50 mm below normal water level.

Insulation: Insulate within the building where subject to freezing.

Vent pipes over cisterns

Route: No restrictions or valves.

Slope: Rising continuously from system connection to discharge over cistern.

Internal diameter: 20 mm (minimum).

Unvented hot water storage discharge pipes

Discharge pipe size: To suit outlet on safety device and length and configuration of pipe.

• Fall: 1 in 80 (minimum).

• Discharge: Via an air break and tundish.

Water softeners

Supply continuity: Fit bypass pipe and stop valves.

Drains: Overflow/ drain lines to trap and waste.

Back siphonage: Prevent back siphonage during regeneration.

Pipelines

Generally to:

• BS 8000-15, clause 3.7;

• BS 5955-8, clause 6.11;

• BS 6700, clause 2.8 and

• BRE Defect Action Sheets 120 and 121.

Notches and holes in timber to:

• BS 6700, Figure 15.

• Building Regulations E&W Approved Document A, section 1B6.

• Building Regulations NI Technical Booklet D, section 2.6.

Position:

• Arrangement: Straight, and parallel or perpendicular to building elements.

• Location: Within floor, ceiling and/ or roof voids.

• Access: To facilitate installation of equipment, accessories and insulation without compression.

• Maintenance: Allow sufficient space for access.

• Where routed together horizontally: Hot pipelines above cold.

• Heating pipelines: Do not run cold water pipelines near.

• Heated spaces: Do not run cold water pipelines through.

• Electrical enclosures: Do not run water pipelines through.

• Electrical equipment: Do not run water pipelines above.

Pipelines fixing

Fixing: Secure and neat.

Joints, bends and offsets: Minimize.

Pipeline support: Prevent strain.

Drains and vents: Fix pipelines to falls. Fit draining taps at low points and vents at high points.

Thermal expansion and contraction: Allow for thermal movement. Isolate from structure. Prevent noise or abrasion.

Pipelines passing through walls, floors or other building elements: Sleeve.

Dirt, insects or rodents: Prevent ingress.

Support for copper/ stainless steel pipelines

Fixing: Secure and true to line.

Support centres (maximum):

• 15 and 22 mm pipe: Horizontal 1200 mm, vertical 1800 mm.

• 28 and 35 mm pipe: Horizontal 1800 mm, vertical 2400 mm.

• 42 and 54 mm pipe: Horizontal 2400 mm, vertical 3000 mm.

Additional supports: Locate within 150 mm of connections, junctions and changes of direction.

Supports for exposed thermoplastics pipelines

Fixing: Secure and true to line.

Support centres (maximum):

• Up to 16 mm pipe: Horizontal 300 mm, vertical 500 mm.

• 17-25 mm pipe: Horizontal 500 mm, vertical 800 mm.

• 26-32 mm pipe: Horizontal 800 mm, vertical 1000 mm.

Additional supports: Locate within 150 mm of connections, junctions and changes of direction.

Bends in thermoplastics pipelines

Bends: Do not use 90º elbow fittings. Large radius bends: Support at maximum centres.

90° bends: Fix pipe clips either side of bend.

Small radius bends: Fully support 90° bends with cold form bend fixtures.

Polyethylene pipelines for use below ground

Jointing: Compression fittings recommended by tube manufacturer.

Pipeline spacing

Clearance (minimum) to face of wall-fixed pipes or pipe insulation:

• From floor: 150 mm.

• From ceiling: 50 mm.

• From wall: 15 mm.

• Between pipes: 25 mm.

• From electrical conduit, cables, etc: 150 mm.

Joints in copper/ stainless steel pipelines

Preparation: Cut pipes square. Remove burrs.

Joints: Neat, clean and fully sealed.

Pipe ends: inserted to full depth.

Formed bends: Do not use on exposed pipework, except for small offsets.

Changes of direction: Use radius fittings.

Adaptors for connecting dissimilar materials: Purpose designed.

Substrate and plastics pipes and fittings: Do not damage.

Flux residue: Clean off.

Capillary joints in plastics coated pipes

Plastics coating: Do not damage.

Completed joint: When cool, wrap with PVC tape of matching colour, half lapped.

Joints in thermoplastics pipelines

Fittings and accessories for joints: Purpose designed.

Preparation: Cut pipes square. Remove burrs.

Joints: Neat, clean and fully sealed. Pipe ends: inserted to full depth.

Compression fittings: Do not overtighten.

Transition joints to boilers, circulators and adjacent to radiant heat sources: 300 mm long (minimum) copper transition tube, diameter as heating pipeline, compression jointed to pipeline and fitting.

Pipelines entering buildings

Depth: Lay pipes 750 mm (minimum) below finished ground level.

Pipelines rising into building within 750 mm of the external face of the external wall or passing through a ventilated void below floor level: Insulate from finished floor level to 600 mm beyond external face of building.

Ends of pipeducts: Seal both ends to a depth of 150 mm (minimum).

External supply pipelines

Pipelines exposed to air and less than 750 mm below finished ground level: Insulate.

Insulation to pipelines

Cold water pipelines: Insulate in unheated spaces and to potable cold water pipelines.

Hot water pipelines: Insulate, except for short lengths in prominent positions next to appliances.

Appearance: Fix securely and neatly. Make continuous over fittings and at supports. Locate split on 'blind' side of pipeline.

Gaps: Not permitted.

Timing: Fit insulation after testing.

Insulation to cisterns

General: Fix securely to sides and top of cisterns.

Gaps: Not permitted.

Access cover: Allow removal of cover with minimum disturbance to insulation.

Underside of cistern: Insulate where exposed in unheated spaces.

Valves

Isolation and regulation valves: Provide on equipment and subcircuits.

Location: Next to equipment to be isolated.

Access: Locate for ease of operation and maintenance.

Connection to pipework: Fit with joints to suit pipe material.

COMPLETION

System disinfection

Disinfection: To BS 6700.

Testing and commissioning

Testing and commissioning: To BS 6700.

• Notice: 3 days (minimum).

Preparation: Secure and clean pipework and equipment. Fit cistern/ tank covers.

Flushing and filling: To BS 6700.

Leak testing: Start and run until all parts are at normal operating temperatures, allow to cool to cold condition for a period of 3 hours.

Pressure testing: At both hot and cold joints, fittings and components free from leaks and signs of physical distress when tested for 1 hour (minimum) as follows:

• Systems fed directly from the mains and systems downstream of a booster pump: Test pressure of 1.5 times the designed maximum operating pressure.

• Systems fed from storage: Test pressure equal to storage cistern filled to normal maximum operating level.

• Inaccessible or buried pipelines: Hydraulic pressure test to twice the maximum operating pressure.

Equipment, controls and safety devices: Check and adjust operation.

Outlets: Check operation, rate of flow and temperature.

Testing gas pipelines

Testing and purging: To BS 6891.

Documentation

Manufacturers' operating and maintenance instructions: Submit for equipment and controls.

System operating and maintenance instructions: Submit for the system as a whole giving optimum settings for controls.

Record drawings: Submit drawings showing the location of circuits and operating controls.

Operating tools

Tools: Supply for operation, maintenance and cleaning purposes.

Valve keys: Supply for valves and vents.

Labels

Isolating and regulating valves on primary circuits: Label with statement of function.