**NG Sample Appendices**

NG Sample Appendix 19/1 (Specification for Road Works) Sheet No. Form BE/P1 (New Works) Paint System Sheet

|  |
| --- |
| 1. CONTRACT TITLE:

STRUCTURE. NO.: GRID REF.: |
| 1. DATE OF ISSUE OF DOCUMENTS TO TENDERERS:
 |
| 1. ENVIRONMENT AND ACCESSIBILITY
 |
| 1. REQUIRED DURABILITY OF SYSTEM:

NO MAINTENANCE: ............. YEARS MINOR MAINTENANCE: ............. YEARSMAJOR MAINTENANCE: ............. YEARS | 1. COLOUR OF FINISH:
 |
| 1. PAINT SYSTEM TO BE APPLIED OVER:

AREA REF: ………………....... AREA DESCRIPTION: ............................................................................ PROTECTIVE SYSTEM TYPE: (i.e. I, II etc.): ......................................... |
| 1. DETAILS
 | 1st Coat | 2nd Coat | 3rd Coat | 4th Coat |
| Registered Description Item No. and Colour NSAI Agrément, BBA HAPAS Road and Bridges Certificate or equivalent Certificate Reference Brand Name and Manufacturer’s Ref. No. Manufacturer’s Data Sheet No. Where applied How applied Min dry film thickness (mdft) Max local dft (See Cl. 1914.7) Estimated total volume of paint likely to be used. (litres) ‘A’ type testing required ? (YES/NO) (See Cl 1912.4) ‘B’ type testing required? (YES/NO) (See Cl 1912.9)  |  |  |  |  |
| 1. STRIPE COAT DESCRIPTION (Including Item No. and colour)

Workshop: Site:  | 1. PAINT MANUFACTURER’S OFFICIAL STAMP:
 |
| 1. Mdft (µm)

NOTE. The minimum total dry film thickness of the paint system, neglecting primers and sealers under 30 microns, shall not be less than the minimum value given for the paint system in Tables 19/2B, 19/3B or 19/4C as appropriate..  | 1. APPROVED BY:

DATE  |

*[Note to compiler:*

1. The above is Appendix 19/1 Form BE/P1 (New Works) Paint System Sheet; a separate form should be provided for each structure, including CCTV masts, cantilever masts, steel lighting columns and bracket arms if appropriate, with items 1 to 5 completed. Sheets should be numbered for easy identification.]

NG Sample Appendix 19/2: (New Works) Requirements for Other Work

*[Notes to compiler:*

* 1. Appendix 19/2 shall be incorporated for situations where special preparation and/or protective systems may be required, or for other works requiring protection. Form BE/P1 (New Works) Paint System Sheet should be provided with items 1 to 5 completed for structures described in this Appendix. The Contractor will then complete the Form using information provided in this Appendix.
	2. When a white or pale finish (two-pack) is to be specified, an additional coat may be required to ensure complete obliteration of the Epoxy MIO Undercoat to achieve full opacity. Additional coats should be specified in this Appendix.]

NG Sample Appendix 19/3 (Specification for Road Works) Form BE/P2 Paint Data Sheet

NSAI Agrément, BBA HAPAS Road and Bridges or equivalent Certificate Reference and Date:

|  |  |  |
| --- | --- | --- |
| Manufacturer  |  | :  |
| Item No.  |  | :  |
| Registered Description  |  | :  |
| Brand Name and Reference No.  |  | :  |
| Consistency and Method of Application  |  | :  |
| Weight per 5 Litres (kg)  |  | :  |
| Specific gravity  |  | :  | Colour: |
| For two-pack paints |  | :  |  |
| Base:  | Activator | :  | Mixed components: |
| Volume Solids %  |  | :  |  |

For two pack paints volume solids % for mixed paint:

VOC content g/l (mixed):

Manufacturer’s Minimum Dry Film

Thickness Range

Recommended lower mdft:

Recommended upper mdft:

Full Application Instructions:

Mix ratio:

Flash Point:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 5°C | 10°C | 20°C | 30°C |
| Drying Times (hours) | Surface Dry |  |  |  |  |
| Hard Dry |  |  |  |  |
| Overcoating Times (hours) | Minimum |  |  |  |  |
| Maximum |  |  |  |  |
| Pot Life (hours) |  |  |  |  |

|  |  |
| --- | --- |
| Cleaning Solvent State effects on Drying Times of Temperatures below 20°C | :  |
| Manufacturer’s Application Restrictions, e.g. for Temperatures or Humidity  | :  |
| Manufacturer’s General Recommendations | :  |

NG Sample Appendix 19/4 (Specification for Road Works) Form BE/P3 Paint Sample Despatch List: Sheet 1

Contract Title

Structure Name Structure No.

Client Name *(National Roads Authority, Local Authority or other company*)

Supervising Firm (Employers Representative)

Supervising Firm’s Representative (Employers Representative) Name: Tel No.

Address: Fax No.

Independent Painting Inspection Firm:

Samples Despatched From: (Note 1) Date Despatched

Inspector’s Name: Tel No

Inspector’s Signature

|  |
| --- |
| **SAMPLES: (Numbered A1, A2 etc. or B1, B2 etc.) (Note 2)** |
| **Sample No.** | **Item No.** | **Manufacturer’s Reference No.** | **Batch No.** | **Colour BS 4800 reference (Note 3)** | **Sp.G.(Notes 4 & 5)** |
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Paint Manufacturer …………………………………………………………………………

NG Sample Appendix 19/4 (Specification for Road Works) Form BE/P3 Paint Sample Despatch List: Sheet 2

INSPECTOR to complete Form BE/P3 and to forward single copies to each of the following within 24 hours of despatch of samples by the Contractor to CREST:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1  | National Roads Authority | 2  | CREST | 3 | Employers Representative |
|  | St Martin’s House |  | FOCAS Institute |  |  |
|  | Waterloo Road |  | DIT – Kevin St |  |  |
|  | Ballsbridge |  | Dublin 8 |  |  |
|  | Dublin 4 |  |  |  |  |
|  |  |  |  |  |  |

INSPECTOR to forward Form(s) BE/P1 Paint System Sheet(s) with the first Form BE/P3 to all addresses unless otherwise agreed with the National Roads Authority.

INSPECTOR to select ‘A’ samples and to ensure that manufacturer’s labels on tins comply with the Specification.

INSPECTOR to take and mark each ‘B’ sample tin with Item No., manufacturer’s name and brand reference No., batch No. sample No. and colour (NOTE 2).

CONTRACTOR to CLIP DOWN LIDS of all tins and to pack, address and despatch samples. In addition to address, CONTRACTOR to label each case (or tin sent loose): ‘NRA (State structure name) and DATE (date of despatch as noted above)’.

Notes:

* + 1. State whether from workshop or site (give name and address).
		2. Batch samples comprising unopened tins to be marked A1, A2, etc. Control samples in 0.5 litre tins to be marked B1, B2, etc. Samples No. to run consecutively, i.e. A1 and B1 onwards.
		3. Colour reference to BS 4800 or BS 381C to be given, as stated on Form BE/P1 (New Works) Paint System Sheet, e.g. 18 B 25.
		4. For ‘A’ samples specific gravity (Sp.G.) to be measured by Inspector from separate tins of the same batch. For ‘B’ samples Sp.G. to be measured by Inspector when taking samples. Samples will be rejected unless Sp.G. is filled in above by Inspector.
		5. If Sp.G. differs appreciably from data sheet do not despatch ‘A’ or ‘B’ samples.
		6. Use of this Form, issue of samples to be agreed with the Employer, if the Employer is not National Roads Authority.

NG Sample Appendix 19/5: (New Works) General Requirements

*[Note to compiler: This should include:]*

* 1. Measures to contain people, plant, materials, dust and debris *[1901.4].*

*[Cross-reference should be made in Appendix 1/23].*

* 1. Whether solvents may be used to remove oil or grease *[1902.1]*
	2. Requirements for cleaning fluid workshop coat if different from the requirement of sub-Clause 1902.10*.*
	3. Requirements for
		1. abrasive if different from the requirements of sub-clause 1903.1
		2. wet blast cleaning and water pressure value if different from the requirements of sub-Clause 1903.12 and 13;
		3. other preparation of surfaces if different from the requirements of sub-Clause 1903.20.
	4. Requirements for surface preparation and material for ‘restored’ coatings if different from the requirements of sub-Clauses 1905.3 (i) and (ii).
	5. Requirements for treatment to threaded fasteners if different from the requirements of sub-Clause 1906.2.
	6. Requirements for the application of blast primer in preloaded connections if different from the requirements of sub-clause 1906.6
	7. Requirements for thermally sprayed aluminium metal coating at joints if different from the requirements of sub-Clauses 1906.7 and 1906.8.
	8. Requirements for stepping back workshop paint coats if required at non-preloaded connections *[1906.16].*
	9. Requirements for:
		1. Requirements for hot dip galvanised coatings if different from the requirements of subclause-1909.1
		2. thermally sprayed aluminium metal coating if different from the requirements of sub-Clause 1909.2;
	10. Requirements for procurement of paints if different from the requirements of sub-Clause 1911.3.
	11. Nominal ‘ground’ or ‘plinth level’ if different from the requirements of sub-Clause 1911.8 (vi).
	12. Requirements for provision of samples if different from the requirements of sub-clauses 1912.1.
	13. Requirements for stripe coats if different from the requirements of sub-Clause 1914.13
	14. Requirements for workshop and site procedure trials if different from the requirements of sub-clause 1915.1.
	15. Requirements at concrete/steelwork contact areas if different from the requirements of sub-Clause 1917.3.
	16. Requirements for the protection of steel in bridge bearings if different from the requirements of Clause 1920.
	17. Requirements for the protection of CCTV masts, cantilever masts, steel lighting columns and bracket arms if different from the requirements of Clause 1921.

NG Sample Appendix 19/6 (Specification for Highway Works) Form BE/P1 (Maintenance) Paint System Sheet 1

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| --- |
| 1. CONTRACT TITLE:

STRUCTURE NO.: GRID REF.:  |
| 1. DATE OF ISSUE OF DOCUMENTS TO TENDERERS:
 |
| 1. ENVIRONMENT AND ACCESSIBILITY:
 |
| 1. EXISTING PROTECTIVE SYSTEM(S):

Metal coatings: Paint coatings: Average total thickness (microns):  |
| 1. REQUIRED DURABILITY OF SYSTEM:

NO MAINTENANCE: …. YEARS MINOR MAINTENANCE: …. YEARS MAJOR MAINTENANCE: …. YEARS  | 1. COLOUR OF FINISH:
 |
| 1. BILLED AREA
 |  | 1. PROTECTIVE SYSTEM TYPE: (i.e. I (M), II (M), III (M), etc.):
 |
| REF: AREA DESCRIPTION:  | SURFACE PREPARATION METHOD  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| 1. PAINT COAT SUMMARY
 | CONDITION OF SURFACES OF EXISTING SYSTEM AFTER SURFACE PREPARATION  |
|  | Condition: Area Ref. | Condition: Area Ref. | Condition: Area Ref. | Condition: Area Ref. |
| COAT & ITEM NO. | mdft | B or AS | mdft | B or AS | mdft | B or AS | mdft | B or AS |
| 1st Coat: Item ….  |  |  |  |  |  |  |  |  |
| 2nd Coat: Item ….  |  |  |  |  |  |  |  |  |
| 3rd Coat: Item ….  |  |  |  |  |  |  |  |  |
| 4th Coat: Item ….  |  |  |  |  |  |  |  |  |
| MIN TOTAL DFT TO BE OBTAINED |  |  |  |  |

NG Sample Appendix 19/6 (Specification for Highway Works) Form BE/P1 (Maintenance) Paint System Sheet 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. Details
 | 1st Coat | 2nd Coat | 3rd Coat | 4th Coat |
| Registered Description  |  |  |  |  |
| Item No. and Colour  |  |  |  |  |
| NSAI Agrément, BBA HAPAS Roads and Bridges or equivalent Certificate Reference  |  |  |  |  |
| Brand Name and Manufacturer’s Ref. No.  |  |  |  |  |
| Manufacturer’s Data Sheet No.  |  |  |  |  |
| Min dry film thickness (mdft) (µm)  |  |  |  |  |
| Max local dft (See sub-Clause 1981.8) (µm)  |  |  |  |  |
| Estimated total volume of paint likely to be used (litres)  |  |  |  |  |
| ‘A’ type testing required? (YES/NO) (See sub-Clause 1978.4)  |  |  |  |  |
| ‘B’ type testing required? (YES/NO) (See sub-Clause 1978.12)  |  |  |  |  |
| 1. STRIPE COAT(S) DESCRIPTION (Including Item No. and colour)
 |
| 1. PATCH COAT(S) DESCRIPTION (Including Item No. and colour)
 |
| 1. ADDITIONAL INFORMATION (By Paint Manufacturer)
 |
| 1. PAINT MANUFACTURER’S OFFICIAL STAMP:
 |
| 1. Mdft (µm)

NOTE. The minimum total dry film thickness (mdft) of the paint system, neglecting primers and sealers under 30 microns, shall be 15% greater (to the nearest 25 microns) than the sum of the mdfts of the individual paint coats.  | 1. APPROVED BY:

DATE |

*[Notes to compiler:*

* + 1. Separate forms should be provided for each structure, including CCTV masts, cantilever masts, steel lighting columns and bracket arms if appropriate, with parts 1 to 9 completed. Sheets should be numbered for easy identification.
		2. A description of coats of lead based paints and other materials which may become health hazards during surface preparation should be included in the description of Existing Protective System(s).
		3. If more than four types of surface condition are specified, a continuation Appendix 19/6 Form BE/P1 (Maintenance) Paint System Sheet should be provided in the tender document.]

NG Sample Appendix 19/7: (Maintenance) Requirements for Other Work

*[Notes to compiler:*

* 1. An Appendix 19/7 may be incorporated for situations where special preparation and/or protective systems may be required, or for other works requiring protection. Appendix 19/6 Form BE/P1 (Maintenance) Paint System Sheet should be provided with parts 1 to 9 completed for structures described in this Appendix. The Contractor will then complete the Form using information provided in this Appendix.
	2. When a white or pale finish (two-pack) is to be specified, an additional coat may be required to ensure complete obliteration of the Epoxy MIO Undercoat to achieve full opacity. Additional coats should be specified in this Appendix.]

NG Sample Appendix 19/8: (Maintenance) General Requirements

*[Note to compiler: This should include:*

* 1. Measures to contain, people, plant, materials, dust and debris [1970.3].

*[Cross-reference should be made in Appendix 1/23].*

* 1. Whether fasteners should be prepared and painted to the same standard as adjacent main surfaces [1971.9].
	2. Requirements for
		1. abrasive if different from the requirements of sub-Clause 1972.11;
		2. wet blast cleaning and water pressure value if different from the requirements of sub-Clauses 1972.15 and 16.
	3. Requirements for:
		1. requirements for hot dip galvanized coatings if different from the requirements of sub-Clause 1974.1;
		2. thermally sprayed metal coating if different from the requirements of sub-Clause 1974.2;
	4. Requirements for procurement of paints if different from the requirements of sub-Clauses 1976.5.
	5. Requirements for stripe coats if different from the requirements of sub-Clause 1981.15.
	6. Whether overcoating times are different from sub-Clause 1981.32.
	7. Requirements for the protection of CCTV masts, cantilever masts, steel lighting columns and bracket arms if different from the requirements of Clause 1984.]