

Superseded

Technical Specification

**Transport and Main Roads Specifications
MRTS88 Protective Coating for New Work**

July 2017

Superseded

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Contents

1	Introduction	1
2	Definition of terms	1
3	Referenced documents	1
4	Quality system requirements	1
4.1	Hold Points, Witness Points and Milestones	1
4.2	Painting procedures	2
4.3	Conformance requirements	2
5	Qualification Requirement	2
5.1	Paint Inspector	2
5.2	Competence of Tradesperson	3
6	Galvanising	3
6.1	Hot-dipped galvanising	3
6.2	Finishing after galvanising	3
6.2.1	<i>Inspection and repairs at galvanising works</i>	3
7	Paint System	3
7.1	Paint System	3
7.2	Paint Repair Procedure	3
7.3	Equivalent Paint Systems	4
7.4	Alternate Paint Systems	4
8	General Paint Application	4
8.1	Painting Application Inspection and Test Plan	4
8.2	Weather conditions	5
8.3	Abnormal Weather Conditions	5
8.4	General Storage of paint	6
8.5	General Site Painting	6
8.6	General Painting Sample	6
8.7	Work Place Health and Safety	6
8.8	Environment Acts and Regulations	7
8.9	General Equipment	7
9	Painting of Steelwork	7
9.1	Scope of Work	7
9.2	Pre-Cleaning	7
9.2.1	<i>Surface Decontamination</i>	7
9.3	Defective substrate (if applicable)	7
9.4	Preparation of surface prior to painting	8
9.4.1	<i>Abrasive Blast Cleaning</i>	8
9.4.2	<i>Whip Blasting</i>	8
9.4.3	<i>Pre-Treatment of Galvanising Surfaces</i>	9
9.4.4	<i>Substrate Profile Verification</i>	9

9.5	Application	9
9.6	Curing	9
9.7	Inspection and Acceptance.....	9
10	Painting of Concrete.....	9
10.1	Scope of Work	9
10.2	Defective substrate (if applicable).....	9
10.3	Preparation of surface prior to painting	10
10.4	Application	10
10.5	Curing	10
10.6	Inspection and Acceptance.....	10
11	Painting of Timber	10
11.1	Scope of Work	10
11.2	Defective substrate (if applicable).....	11
11.3	Preparation of surface prior to painting	11
11.4	Application	11
11.5	Curing	11
11.6	Inspection and Acceptance.....	11
12	Inspection of Paint System.....	11
12.1	Inspection.....	11
12.2	General Inspection Criteria	11
12.3	Marking of Defects	12
12.4	Repair of Paint System	12
13	Final Acceptance of Painting.....	12
13.1	Paint Lot.....	12
13.2	Final Acceptance of Paint Lot.....	13
14	Handling and Transport	13
15	Supplementary requirements	13
	Appendix A: Acceptance Criteria for New Coatings.....	14

1 Introduction

This Technical Specification applies to the protective coating for new steel, concrete and timber surfaces.

This Technical Specification shall be read in conjunction with MRTS01 *Introduction to Technical Specifications*, MRTS50 *Specific Quality System Requirements* and other Technical Specifications, as appropriate.

This Technical Specification forms part of the Department of Transport and Main Roads' Specifications Manual.

For surfaces other than steel, concrete and timber, a Project Supplementary Technical Specification will need to be developed.

Repainting and painting of old surfaces is covered under MRTS85 *Repainting Steel Bridges*.

2 Definition of terms

The terms used in this Technical Specification shall be as defined in Clause 2 of MRTS01 *Introduction to Technical Specifications*.

3 Referenced documents

Table 3 lists the documents referenced in this Technical Specification.

Table 3 – Referenced documents

Reference	Title
AS 1580	<i>Paints and related materials – Methods of test related parts</i>
AS 1627.1	<i>Cleaning using liquid solvents or alkaline solutions</i>
AS 1627.4	<i>Abrasive blast cleaning</i>
AS 1627.9	<i>Pictorial surface preparation standards for painting steel surfaces</i>
AS/NZS 2312	<i>Guide to the protection of structural steel against atmospheric corrosion by the use of protective coatings - Paint coatings</i>
AS/NZS 4680	<i>Hot-dip galvanized (zinc) coatings on fabricated ferrous articles</i>
MRTS01	<i>Introduction to Technical Specifications</i>
MRTS50	<i>Specific Quality System Requirements</i>
MRTS78	<i>Fabrication of Structural Steelwork</i>
MRTS85	<i>Repainting Steel Bridges</i>
TN144	<i>Paint Systems for MRTS88</i>

4 Quality system requirements

4.1 Hold Points, Witness Points and Milestones

General requirements for Hold Points, Witness Points and Milestones are specified in Clause 5.2 of MRTS01 *Introduction to Technical Specifications*.

The Hold Points, Witness Points and Milestones applicable to this Technical Specification are summarised in Table 4.1.

Table 4.1 – Hold Points and Milestones

Clause	Hold Point	Witness Point	Milestone
5.1	1. Paint Inspector		
6.2.1		1. Inspection of galvanising	
7.3			Submission of proposed paint system (28 days)
7.4	2. Alternate Paint System		Submission of proposed paint system (28 days)
8.1	3. Paint Inspection and Test Plan		Submission of Inspection and Test Plan (28 days)
8.3	4. Paint Application Procedure Abnormal Weather Conditions		Submission of proposed procedure (28 days)
9.3	5. Defective Substrate Steelwork		
9.4.4		2. Substrate Profile Verification	
10.2	6. Defective Substrate Concrete		
11.2	7. Defective Substrate Timber		
13.2			Submission of Manufacturer Data Record

4.2 Painting procedures

Painting procedures are required to be prepared by the Contractor and submitted to the Administrator in accordance with Clause 5 of MRTS50 *Specific Quality System Requirements* are listed in Table 4.1.

4.3 Conformance requirements

The conformance requirements applicable to the work detailed in this Technical Specification are summarised in Table 4.3.

Table 4.3 – Conformance requirements

Clause	Procedure
12	Inspection of Paint System

5 Qualification Requirement

5.1 Paint Inspector

The Administrator shall appoint an approved painting inspector to oversee the painting operation

Hold Point 1 The painting inspector shall have either:

- a) Level 1: National Association of Corrosion Engineers (NACE) Accreditation, and

- b) Satisfy the Administrator of sufficient technical knowledge to undertake the inspections under the Contractor.

5.2 Competence of Tradesperson

The Contractor shall ensure all surface preparation and coating application is performed by tradespeople who are specialists in this particular field. The Contractor shall produce evidence of satisfactory and lengthy experience. Only experienced industrial painters shall be employed and the foreman shall possess a current Coating Inspection Ticket issued acceptable to the Administrator.

6 Galvanising

6.1 Hot-dipped galvanising

All fabricated steelwork shall be hot-dipped galvanised after fabrication in accordance with the requirements of AS/NZS 4680 unless otherwise specified.

6.2 Finishing after galvanising

6.2.1 Inspection and repairs at galvanising works

Following galvanising and before leaving the galvanising works, the steelwork shall be inspected by the Administrator for any coating defects **Witness Point 1** Repairs to galvanised coatings, where necessary, shall be carried out strictly in accordance with the requirements of AS/NZS 4680.

The recommended paint products for repairing damaged galvanising shall be in accordance with Clause 1 of Annexure MRTS88.1.

A National Steel Specification is currently under development. Once developed and endorsed by the Department of Transport and Main Roads this section will take precedence over the MRTS78 *Fabrication of Structural Steelwork* in terms of the galvanising of steelwork.

7 Paint System

7.1 Paint System

All paint shall not contain lead or chromium. All paint systems shall comply with the requirements of AS/NZS 2312.

The paint system shall be defined in Clause 2 of Annexure MRTS88.1.

The Contract documents will outline the paint system which will be used under the contract. The Annexure MRTS88 can be completed by referring to the TN144 *Paint Systems for MRTS88*. All the previously used paint systems which have been assessed under Appendix A of this Technical Specification are listed in this Technical Note.

7.2 Paint Repair Procedure

All repair paint systems shall not contain lead or chromium. The paint repair systems shall comply with the requirements of AS/NZS 2312.

Paint repair system and procedures are required to repair paint systems where the paint has been damaged during handling or construction and in service defects.

The paint repair system shall be defined in Clause 2 of Annexure MRTS88.1.

The Contract documents will outline the paint repair system which will be used under the Contract. The Annexure MRTS88 can be completed by referring to the TN144 *Paint Systems for MRTS88*. All the previously used paint systems which have been assessed under Appendix A of this Technical Specification are listed in this Technical Note.

7.3 Equivalent Paint Systems

Contractor wishing to use an equivalent paint system to the one specified in Clause 2 of Annexure MRTS88.1, The Contractor shall submit the equivalent paint system to the Administrator at least 28 days prior to ordering paint. **Milestone**

TN144 *Paint Systems for MRTS88* outlines a number of paint systems from various paint manufactures. The Administrator may specify a particular paint company system however the Contract may prefer to use another paint manufactures product. This clause permits the Contractor to propose an equivalent paint system provided the paint system is listed in TN144 *Paint Systems for MRTS88*.

7.4 Alternate Paint Systems

Contractor wishing to use an alternate paint system, the Contractor shall submit the alternate paint system to the Administrator at least 28 days prior to ordering paint. Any alternate paint system proposed shall comply with the requirements outlined in Appendix A of this Technical Specification.

Milestone

Paint shall not be ordered until the alternate paint system has been approved by the Administrator.

Hold Point 2

The above clause is used when the Contract wishes to use a paint system which is not listed in TN144 *Paint Systems for MRTS88*. The alternate paint system shall comply with the requirements outlined in Appendix A of this Technical Specification. Products which are added to the Technical Note.

8 General Paint Application

8.1 Painting Application Inspection and Test Plan

The Contractor shall have a monitoring and recording system for at least the following:

- a) surface preparation and surface profile
- b) paint system adopted
- c) substrate surface temperature
- d) batch number of paint used for each layer
- e) method of application

- f) method of etching between coats
- g) weather conditions
- h) quantity of paint used
- i) time each coat was applied
- j) recoating times
- k) drying time before handling
- l) dry film thickness of each paint coat layer, and
- m) location of Dry Film Thickness measurements.

The Contractor shall submit to the Administrator a written Inspection and Test Plan which addresses items (a) to (m) outlined above, at least 28 days prior to commencing painting. **Milestone**

No surface preparation shall be undertaken until Inspection and Test Plan has been approved by the Administrator. **Hold Point 3**

8.2 Weather conditions

All coatings shall be applied to a dry surface. Coatings shall not be applied in the following conditions:

- When the temperature of the ambient air or the receiving surface is less than 10°C.
- When the temperature of the receiving surface is greater than 55°C, and
- When the humidity is greater than 85%. Paint shall not be applied if adverse weather conditions are likely to occur before the paint can cure.

The coating shall not be applied when the surface temperature of the metal is within 3°C above the dew point, or when the surface is in direct strong sunlight.

All paintings shall be monitored using a total weather station which records the following information:

- a) time and date
- b) ambient temperature
- c) relative humidity, and
- d) dew point.

8.3 Abnormal Weather Conditions

Where the environment or weather conditions do not permit the application within the limits outlined in Clause 8.2. The Contractor shall submit a procedure for adjusting the application process or changing the environment to the Administrator 28 days prior to the preparation of the substrate outlining the following: **Milestone**

- a) method of changing the environment
- b) process to be used for the preparation of the substrate
- c) process for the application of the paint, and
- d) process for the curing of the paint.

All painting within the changed environment shall be monitored using a total weather station which records the following information:

- a) time and date
- b) ambient temperature
- c) relative humidity, and
- d) dew point.

Paint application in abnormal weather conditions shall not be undertaken until the paint procedure has been approved by the Administrator. **Hold Point 4**

8.4 General Storage of paint

Paint shall be stored in sealed containers in a lock-up store that is not exposed to extreme temperature. The temperature within the storage area shall be kept within the limits nominated in Clause 2 of Annexure MRTS88.1. Any special storage conditions recommended by the Manufacturer shall be observed.

Paint which has not been used within the shelf life period specified in Clause 2 of Annexure MRTS88.1, or within 18 months of manufacture, shall be removed and replaced.

8.5 General Site Painting

All on Site applied painting systems shall be undertaken by brush or roll. The Contractor may apply for an exemption to apply the paint system using spray gun, provided the Contractor can demonstrate the following:

- There is a system to prevent paint droplets being carried by the wind from an area being painted.
- There is a system to monitor the overspray around the Site.
- Surround and adjacent areas to the surface being painted shall be protected from paint overspray.
- Contractor has a system to repair overspray, drips, spills and damage caused by wind drift of paint droplets.

8.6 General Painting Sample

The Contractor shall supply a sample paint plate of the approved paint system on an equivalent material type to the components the paint system is being applied. The sample shall show the following:

- i. stepped layers to indicate applied layers of paint from prime to final coat
- ii. colour of the final coat
- iii. finish, and
- iv. dry film thickness for each paint layer and combined paint layer.

8.7 Work Place Health and Safety

All surface preparation and painting shall be undertaken in accordance with the current Work Place Health and Safety requirements.

8.8 Environment Acts and Regulations

All surface preparation and painting shall be undertaken in accordance with the current Environment Acts and Regulations.

8.9 General Equipment

The Contractor shall be responsible for the supply and maintenance of the painting and blasting equipment. The compressors shall be of adequate size for the work to be undertaken and be in good working order. Air shall be free of oil and water. Suitable water and oil traps shall be fitted to air lines and regularly maintained.

9 Painting of Steelwork

9.1 Scope of Work

The scope of the work to be undertaken under the Contract shall be as stated in Clause 4 in Annexure MRTS88.1

9.2 Pre-Cleaning

All surfaces shall be cleaned and free of contaminants prior to preparing the surface for the application of the paint system. The surface shall be free of welding slag, splatter and flux residues, paint, dust, dirt, grease, oil, chemicals and salts. The minimum standards employed shall be in accordance with AS 1627 Part 1.

9.2.1 Surface Decontamination

Surface decontamination is required when uncoated steel has been exposed to a corrosive environment.

The surface shall be tested with a test kit using ferrous ion indicator strips. Titration analysis indicator test strips pH indicators strips.

The allowable maximum ranges for contamination shall be:

- Soluble iron salts < 3 mg/l
- Sodium chloride less than 30 ppm, and
- pH between six and eight.

When the ranges are exceeded, high-pressure water blasting with portable water using a minimum nozzle pressure of 25,000 kPa to remove the salts, dirt and other contaminants from the surface and re-tested. Any detergents used shall be of a non-ionic type and be approved by the Administrator.

If contamination values are still exceeded, blast the substrate and re-test. The frequency of testing shall not be less than one for every 50 m². High pressure cleaning shall continue until the contaminants are removed.

9.3 Defective substrate (if applicable)

All sharp edges and corners shall be dressed to a 2 mm radius (minimum) and grinding rags removed by finishing, or hand filing or other approved methods.

The Contractor shall be responsible for ensuring the substrates are suitable for the application of the paint system. Any defective substrates which require repairs, the Contractor shall notify the

Administrator of the defective substrate areas and the proposed corrective action to be undertaken. The corrective action shall be approved by the Administrator. **Hold Point 5**

9.4 Preparation of surface prior to painting

The preparation of the surface shall be as per Clause 2 of Annexure MRTS88.1.

Any repairs carried out after preparing the substrate surface shall be re-prepared in accordance with the Clause 2 of Annexure MRTS88.1.

9.4.1 Abrasive Blast Cleaning

Particular attention shall be paid to joints, angles, pits and welded areas to ensure that the surface is brought to the standard required in AS 1627 Part 4 and Part 9. The class of finish specified for the coating system is the minimum standard required for all parts of the surface to be coated.

Blasting carried out outside a blast chamber shall contain less than 5% free silica. The Contractor shall collect spent abrasive and remove it from the Site. Care shall be taken to prevent the spent abrasives from fouling drains.

After blasting, all the dust and grit shall be removed from the entire blasted surface of the steelwork including any pockets and corners using dry compressed air.

The surface of the steel shall be further tested for the presence of soluble salts in accordance with Appendix E of AS 1627.4 and where identified. The surface shall be re-cleaned in accordance with Clause 9.2 of this Technical Specification until all traces of the contaminates have been removed, prior to applying the prime coat.

Between cleaning and priming, the steel shall not be allowed to be contaminated in anyway. Operators shall wear clean gloves when handling the steel at this stage.

The Contractor shall ensure that the weather conditions, wind borne dust, further blasting activities, non-availability of labour, equipment or paint do not prevent the application of a priming coat within the prescribed period.

9.4.2 Whip Blasting

Whip blasting shall be carried out when specified or for the following situations:

- the re-coating interval for a two pack system is exceeded
- applying new coating over a glossy substrate, and
- coating galvanised steel.

The following conditions must be met when whip blasting unless otherwise approved by the Administrator.

- a) compressor air not exceeding 300 kPa
- b) abrasive grade between 0.2-0.5 mm
- c) abrasive material is clean and dry
- d) minimum nozzle size is 10 mm, and
- e) blast nozzle is held at 45° to the substrate for a distance of approximately 400 mm from the surface.

9.4.3 Pre-Treatment of Galvanising Surfaces

Galvanised surfaces shall be degreased by solvent cleaning or other approved method in accordance with AS 1627.1. The surface shall be dry abrasive whip blasted to remove the oxide film and surface contamination with minimal reduction in the galvanising coating thickness. The blasted surface shall exhibit a dull grey finish and a surface profile suitable for the proper adhesion of the specified protective coating.

9.4.4 Substrate Profile Verification

Prior to the application of the primer coat, the surface profile shall be measured in accordance with AS 1627.4 and conformed as complying with the relevant paint system Technical Specification. The Painting Inspector shall ensure the blasting profile has been achieved prior to the application of the primer coat **Witness Point 2**

9.5 Application

All coatings shall be thoroughly mixed and applied as per Clause 2 of Annexure MRTS88.1 and the approved paint system technical data sheets.

Any thinners which are added to allow for the application of the paint, the wet film thickness shall be adjusted by calculating the added thinners in the paint. The Contractor shall revise the wet film thickness values as defined in Clause 2 of Annexure MRTS88.1.

All surfaces shall be dry, clean and free of any loose or flaky material prior to the application of each layer.

All coatings shall be applied so as to produce a smooth, even coating free of lumps, ripples, sags, air holes, cracks, lack of adhesion, incomplete curing/hardening, mechanical damage, nibs, excessive brush marks and other defects.

9.6 Curing

The curing time for each coat shall be strictly adhered to in accordance with Clause 2 of Annexure MRTS88.1 and the approved paint system technical data sheets.

9.7 Inspection and Acceptance

Each coat of the paint system shall be inspected as per Clause 12. The dry film thickness of the paint shall be measured with an appropriate calibrated Digital Electronic Coating Thickness Gauge. Instruments shall be calibrated in accordance with Method 108.1 of AS 1580 using non-magnetic shims on polished steel.

10 Painting of Concrete

10.1 Scope of Work

The scope of the work to be undertaken under the Contract shall be as stated in Clause 4 in Annexure MRTS88.1.

10.2 Defective substrate (if applicable)

The Contractor shall be responsible for ensuring the substrates are suitable for the application of the paint system. Any defective substrates which require repairs, the Contractor shall notify the Administrator of the defective substrate areas and the proposed corrective action to be undertaken. The corrective action shall be approved by the Administrator. **Hold Point 6**

10.3 Preparation of surface prior to painting

The preparation of the surface shall be as per Clause 2 of Annexure MRTS88.1.

All surfaces shall be clean, dry, free of oil and free of any loose or flaky material and other contaminants such as forming lubricants and curing compounds, which would affect the adhesion of a coating.

The moisture content of the concrete shall be less than 6%, measured by a Protimeter Survey Master of similar device. Laitance and loose surface powder on new concrete shall be removed. The alkalinity and porosity of the surface shall be considered when painting the concrete. The preferred surface preparation is:

- sweep blasting using recoverable abrasive blasting
- wire brushing
- a proprietary acid etch treatment followed by thorough water washing, and
- minor cracks shall be filled with an approved epoxy sealant prior to painting.

10.4 Application

All coatings shall be thoroughly mixed and applied as per Clause 2 of Annexure MRTS88.1 and the approved paint system technical data sheets.

Any thinners which are added to allow for the application of the paint, the wet film thickness shall be adjusted by calculating the added thinners in the paint. The Contractor shall revise the wet film thickness values as defined in Clause 2 of Annexure MRTS88.1.

All surfaces shall be dry, clean and free of any loose or flaky material prior to the application of each layer.

All coatings shall be applied so as to produce a smooth, even coating free of lumps, ripples, sags, air holes, cracks, lack of adhesion, incomplete curing/hardening, mechanical damage, nibs, excessive brush marks and other defects.

10.5 Curing

The curing time for each coat shall be strictly adhered to in accordance with Clause 2 of Annexure MRTS88.1.

10.6 Inspection and Acceptance

Each coat of the paint system shall be inspected as per Clause 12. The dry film thickness of the paint shall be measured with an appropriate calibrated Digital Electronic Coating Thickness Gauge. Instruments shall be calibrated in accordance with Method 108.1 of AS 1580.

11 Painting of Timber

11.1 Scope of Work

The scope of the work to be undertaken under the Contract shall be as stated in Clause 4 in Annexure MRTS88.1

11.2 Defective substrate (if applicable)

Prior to preparation for painting, the Contractor shall notify the Administrator of any defective substrate and propose corrective action. Prior to the commencement of preparation, the corrective action shall be approved by the Administrator. **Hold Point 7**

11.3 Preparation of surface prior to painting

The preparation of the surface shall be as per Clause 2 of Annexure MRTS88.1 and the approved paint system technical data sheets.

The timber shall be free of sap prior preparing the surface of the timber.

11.4 Application

All coatings shall be thoroughly mixed and applied as per Clause 2 of Annexure MRTS88.1 and the approved paint system technical data sheets.

Any thinners which are added to allow for the application of the paint, the wet film thickness shall be adjusted by calculating the added thinners in the paint. The Contractor shall revise the wet film thickness values as defined in Clause 2 of Annexure MRTS88.1.

All surfaces shall be dry, clean and free of any loose or flaky material prior to the application of each layer.

All coatings shall be applied so as to produce a smooth, even coating free of lumps, ripples, sags, air holes, cracks, lack of adhesion, incomplete curing/hardening, mechanical damage, nibs, excessive brush marks and other defects.

11.5 Curing

The curing time for each coat shall be strictly adhered to in accordance with Clause 2 of Annexure MRTS88.1 and the approved paint system technical data sheets.

11.6 Inspection and Acceptance

Each coat of the paint system shall be inspected as per Clause 12. The dry film thickness of the paint shall be measured with an appropriate calibrated Digital Electronic Coating Thickness Gauge. Instruments shall be calibrated in accordance with Method 108.1 of AS 1580.

12 Inspection of Paint System

12.1 Inspection

The approved Inspector shall have reasonable access to the site by the Contractor for all inspections. Hold points for inspection shall be agreed between the Administrator and the Contractor before work commences. The Inspector may refer to the Contractor's records as the basis for inspection.

12.2 General Inspection Criteria

The average dry film thickness of the coating shall not be less than the specified thickness.

Any individual dry film coating thickness readings shall not be less than 90% of the specified thickness and no more than 120% of the specified thickness.

The number of readings taken shall be determined as follows:

- a) For pipe work, the following readings shall be taken:
 - i. for pipes less than 150 mm diameter, two readings shall be taken evenly around the circumference per linear metre
 - ii. for pipes 150 mm but less than 300 mm diameter, four readings shall be taken evenly around the circumference per linear metre, and
 - iii. for pipes 300 mm but less than 600 mm diameter, six readings to be taken evenly around the circumference per linear metre.
- b) For beams and angles where the face is less than 300 mm wide, one reading on each flat face for every linear metre
- c) For flat surfaces on steel, concrete and timber, a minimum of ten readings per square metre shall be taken, and
- d) For all other areas, a minimum of ten readings per square metre shall be taken.

12.3 Marking of Defects

The marking of all paint defects shall be marked with school grade chalk, adhesive inspection labels or masking tape. The Contractor shall repair all the defects found.

12.4 Repair of Paint System

To reinstate a damaged coating system or to rebuild the dry film thickness, the following procedure shall be followed:

- a) any sharp edges of the damaged coating shall be feathered or tapered
- b) any oil, grease, dirt or other contaminants shall be removed from the surface with a suitable solvent or oil emulsifier and degreaser and the surface abraded by use of a suitable tool, emery cloth or by whip blasting
- c) the appropriate coating system shall be applied as specified to the damaged area
- d) foreign particles shall not be permitted within the coating, and
- e) areas of low thickness shall be rebuilt to that specified, by applying the appropriate coating.

13 Final Acceptance of Painting

13.1 Paint Lot

All painted items shall be broken into painting lots. Painting lots shall be either:

- a) span of Bridge Girders
- b) members forming an individual structure
- c) surface with a length not more than 500 metres, or
- d) a section / item defined by the Administrator.

13.2 Final Acceptance of Paint Lot

The Contractor shall provide a Manufacturer Data Record containing the following for the acceptance of a paint lot. **Milestone**

- a) records of inspection of surface preparation and surface profile
- b) graphical results showing that the paint was applied in accordance with the weather conditions
- c) substrate surface temperature for each layer
- d) batch number of paint used for each layer
- e) Location of Dry Film Thickness measurements, and
- f) Dry Film Thickness reading for each layer.

Any non-conformances identified during inspections shall be repaired by the Contractor prior to the acceptance of the lot.

14 Handling and Transport

Final coats shall be allowed to dry and cure before handling and transport. The curing period shall not be less than that recommended by the coating manufacturer for the ambient temperature reached during the period or for a minimum of two days whichever is longer.

Particular care shall be taken to avoid damage to coatings while being handled and during transport. Rubber coated or softly padded slings shall be used and soft pads placed under and between members when they are stacked for storage and transport. Similar measures shall be taken with the ropes and slings to secure the steelwork during transport.

All items shall be inspected upon arrival to the Site. Particular care shall be taken during unloading and storage. If the Administrator observes any damage to the coating is substantial, it shall be repaired fully using the paint repair procedure at the Contractors expense.

15 Supplementary requirements

The requirements of MRTS88 *Protective Coating for New Work* are varied by the Supplementary Requirements given in Clause 5 of Annexure MRTS88.1.

Appendix A: Acceptance Criteria for New Coatings

Any new paint system which is not outlined in TN144 *Paint Systems for MRTS88* shall be assessed according to the following requirements.

All New Paint Systems the paint manufacturer shall satisfy the following.

- a) New paint system technical data sheets shall be provided for each coat:
 - i. The coating type
 - ii. Substrate Preparation
 - iii. Coating Colour
 - iv. Method of application
 - v. Binder Type
 - vi. Pot Life
 - vii. Volume Solids
 - viii. Wet Film Thickness
 - ix. Dry Film Thickness
 - x. Curing Time
 - xi. Overcoat Time
 - xii. Method of Etching between coats
 - xiii. Paint storage and shelf life requirements.
- b) All paint systems shall be supplied with a paint repair procedure and paint repair procedure shall be trialled to ensure the repair system is effective.
- c) Provide demonstrated case history of where the paint system has been used and performance over the last 5 years has been assessed. The paint system case history shall be applicable to the geographical location and weather conditions the paint system shall be applied.
- d) If no documentary evidence is available then samples shall be prepared left to weather for a period of 12 months to assess the following:
 - i. Paint can be applied for the geographical location and weather conditions the final paint system will be applied
 - ii. Condition of the paint after a 12 month period, and
 - iii. Paint can be repaired using the paint repair procedure.
- e) Supply a sample of applied paint system on an equivalent material type to the components the paint system is being applied. The sample shall show the following:
 - i. Stepped layers to indicate applied layers of paint from prime to final coat
 - ii. Colour of the final coat
 - iii. Finish
 - iv. Dry Film Thickness for each paint layer and combined paint layer.

All new paint systems shall not be used until the Administrator has approved the use of the New Paint System.

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