WINDIMURRA VANADIUM PTY LTD

WINDIMURRA VANADIUM PROJECT

STANDARD SPECIFICATION FOR PAINTING AND PROTECTIVE COATINGS

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1.0 SCOPE

This Specification covers the requirements for the surface preparation, priming, painting and protective coating of mechanical equipment, steel pipe external and internal surfaces, structural steelwork, platework, tankage, guards, handrails and associated metal surfaces, and concrete surfaces.

2.0 APPLICABLE DOCUMENTS

The works shall conform to the latest edition of the following documents.

2.1 SAA Standards and Codes

The following standards shall be used in connection with this Specification where they are relevant.

AS 1627 Pt 1	Cleaning using Liquid Solvents & Alkaline Solutions
AS 1627 Pt 2	Power Tool Cleaning
AS 1627 Pt 3	Flame Descaling
AS 1627 Pt 4	Abrasive Blast Cleaning
AS 1627 Pt 5	Pickling Steel Surfaces
AS 1627 Pt 7	Hand Tool Cleaning of Metal Surfaces
AS 1627 Pt 9*	Pictorial Surface Preparation for Painting Steel Surfaces
AS 1650	Hot-dipped Galvanised Coating on Ferrous Articles
AS 2700	Colour Standards for General Purposes
AS 2331	Methods of Test for Metallic and Related Coatings
AS 3750.15	Inorganic Zinc Silicate Paint
AS 3750.9	Zinc-Rich Organic Priming Paint
AS 1214	Hot Dipped Galvanised Coatings on Threaded Fasteners (ISO Metric Coarse Thread Series)
AS 1252	High Strength Steel Bolts with Associated Nuts and Washers for Structural Engineering
AS1345	Identification of Contents of Pipes
AS 2312	Guide to the Protection of Iron and Steel against Exterior Atmospheric Corrosion
BS 6374	Lining of Equipment with Polymeric Materials

* This code endorses the Swedish Code SIS 05 59 00.

3.0 METAL SURFACE PREPARATION

3.1 Pre-Cleaning

Before abrasive blast or any other cleaning, all weld splatter shall be removed from the surface, all sharp edges ground down and all surfaces cleaned free of contaminants including chalked paint, dust, grease, oil, chemicals and salt.

Oil and grease shall be solvent cleaned and loose rust or solids removed. The surface shall then be washed with non-toxic detergent in water.

3.2 Abrasive Blast Cleaning

Air used for blast cleaning shall be clean and dry with no traces of oil or moisture.

Blast cleaning shall ensure that surfaces of joints, angles, pits and weld areas are brought to the required standard.

After blasting, all dust and grit shall be removed from pockets and corners and contamination of all surfaces avoided before priming.

All surfaces shall be prime coated before discolouration occurs and in any case within four hours of blast cleaning.

Should discolouration occur prior to application of the prime coat, the surface shall be abrasive blast cleaned to the satisfaction of the Engineer.

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

3.3 Hand Tool Cleaning

Pre-cleaning shall be in accordance with this Specification.

All loose rust, broken scale and other deleterious matter shall be removed.

Polished surfaces shall be avoided, particularly if mechanical wire brush is used.

4.0 APPLICATION OF COATINGS

4.1 General

Humidity, ambient and surface temperature conditions at the time of paint application and curing and drying time before overcoating shall be in accordance with the paint manufacturer's recommendations.

The painting environment shall be free of rain or wind-borne and blast cleaning dust.

Paints and thinners shall be brought to the point of usage in unopened original containers bearing the manufacturer's brand name and colour designation and ready-mixed unless otherwise specified. Two-pack systems shall be mixed at the site of application to the paint manufacturer's recommendations. Not more than the amount that can be applied during the stated pot life shall be prepared.

Paint shall be applied so that an even film of uniform thickness, tint and consistency covers the entire surface and is free of pin holes, runs, sags or excessive brush marks. Film finish shall be equal to that of first class brushwork.

Where two coats of the same paint are applied, the first coat shall be of lighter tint than the second coat.

Paint ingredients shall be kept properly mixed during paint application.

The application method and type of equipment used shall be suitable for the paint specified and the surface being painted.

Equipment shall be kept clean to ensure dirt, dried paint and other foreign materials are not deposited in the paint film. Any cleaning solvents left in the equipment shall be completely removed before painting.

To ensure the required film thickness, all angles, welds, sharp and external edges, nuts and bolts, shall be coated once immediately prior to the application of each coating to the whole area from all sides of obstructions such as bolts and nuts.

Paint shall be worked into all joints and crevices.

Any steelwork surfaces which are to be fastened to each other by means of bolts tightened using friction grip bolting shall be cleaned and prime painted only prior to erection.

4.2 Conventional or Airless Spray

Spray equipment shall be equipped with accurate pressure regulators and gauges. Spray gun nozzles and needles shall be those recommended by the paint manufacturer.

Air from the spray gun shall be clean and dry with no traces of oil or moisture.

Coatings shall be wet on contacting the painted surface. Areas of dry spray shall be removed to the satisfaction of the Engineer and the correct system re-applied.

4.3 Brush Application

The method of "laying-off" shall be suited to the paint specified and shall ensure minimum brush marking.

4.4 Roller Application

A uniform method of application shall be adopted when painting large areas. The rolling direction shall minimise paint joint build up. Edges and areas subject to possible roller damage shall be brush-painted prior to rolling.

4.5 Thickness of Coatings

The maximum thickness in any one application shall not exceed that recommended by the paint manufacturer.

The wet film thickness of each coat and the amount of thinners used in its application shall be as recommended by the paint manufacturer.

Wet film thickness gauges shall be used to make frequent checks on the applied wet film.

The Contractor shall maintain at the site of painting operations a dry film thickness tester of an approved type.

Further to Clause 11.6.1 of AS 2312, 90% of all readings shall be to the specified film thickness or above. Readings shall be carried out on a random basis, at an average of 20 per square metre platework and 5 per linear metre for structural steelwork.

Where the coatings are found to be under the specified film thickness, the Contractor shall apply an additional coat or coats to achieve the specified film thickness.

4.6 Multiple Coat Applications (except wet-on-wet)

Immediately before each coating after the first (except those prescribed by the manufacturer as "wet-on-wet") any grease or oil present shall be removed by a suitable solvent and any salt and dirt adhering to the surface removed by scrubbing with a solution of non-toxic detergent.

The surface shall then be pressure hosed or dusted down by brush to disturb and remove deposits not apparent on visual inspection.

Coatings shall be applied only under the following conditions.

- The surface has been cleaned and is dry.
- The manufacturer's stated minimum time for recoat has elapsed.
- The manufacturer's stated maximum time for recoat has not elapsed. If the maximum time has elapsed or in the case of recoating, then pre-treatment shall be in accordance with the paint manufacturer's recommendations.
- Damaged areas in preceding coat have been made good in accordance with Clause 5 of this Specification.

4.7 Hot Dip Galvanising

All galvanising shall be carried out by the hot dipping process and conform to the requirements of AS 1650.

All welding slag shall be removed by chipping, wire brushing, flame cleaning or abrasive blast cleaning where necessary.

For temporary identification, either water soluble marking paints or detachable metal labels shall be used. For permanent identification, figures shall be heavily punched or embossed by the fabricator.

After pickling, the work shall be inspected and any defects which render the work unsuitable for galvanising shall be repaired. After such repairs the work shall again be cleaned by pickling.

The coating mass of zinc shall be in accordance with Section 6 of AS 1650 and shall be tested by the methods described in AS 2331.

After galvanising all material shall be cooled to air temperature in such a manner that no embrittlement occurs.

Galvanised coatings shall be smooth, uniform, adherent and free from stains, surface imperfections and inclusions.

All fixings including nuts, bolts and washers shall be hot dipped galvanised in accordance with AS 1214 and AS 1252 and all nut threads shall be retapped after galvanising and a lubricant applied in accordance with AS 1252.

Cold working of galvanised steelwork shall be avoided.

4.8 Rubber Lined Internal Surfaces (Chutes, Hoppers & Tanks)

Rubber lining shall comply with BS6374. Grade of rubber as specified on the drawings

The rubber lining shall be 6mm thick, unless otherwise specified on the drawings.

4.9 Below Ground Steel Pipework External Surfaces

4.9.1 Application over Steel Pipe

Coatings shall be applied to within 150mm of each end of the pipe and fittings such as bends and tees.

4.9.2 Application over Welded Joints

All dirt, loose rust and heavy weld spatter shall be cleaned from bare metal on the welded joint and for a distance of at least 100mm on the coating and wrapping at each end of the pipe.

The cleaned area shall be prime coated over a nominal length of 500mm with Denso 300 Priming Paste, or approved equivalent.

One wrap of Denso Tape, with an end lap of at least 75mm around the single weld on a slip-in joint or two similar wraps on a collar joint, shall be applied and smoothed down by hand to achieve intimate contact with the metal.

Denso 500 Tape, or approved equivalent, shall be spirally applied over the joint and 100mm onto the wrapping on each side of the joint, using a 55% overlap to ensure a double thickness of tape.

The wrapping shall be finished off by smoothing down by hand each turn of the tape to exclude any air bubbles and ensure intimate contact with the metal and remaining wrapping.

As a protection against damage during backfilling, the taped sections shall be wrapped with Denso 900 Tape, or approved equivalent, extending 300mm beyond the Denso 500 taping on both sides.

Mastic shall be Denso 400 Fillet Mastic (Plast) or approved equivalent.

4.9.3 Application over Fittings including Bends, Tees, flanges

All dirt, loose rust or flaking paint shall be cleaned from the fitting.

The cleaned areas shall be liberally primed with Denso 300 Priming Paste, or approved equivalent.

All sharp angles, depressions, bolt heads, nuts, washers, flanges and other irregular surfaces shall be built up with Denso Mastic Paste to improve contours.

Denso Tape shall be applied to the entire area to be protected to achieve at least one thickness of cover.

5.0 DAMAGED, BURIED STEELWORK OR INACCESSIBLE SURFACES

5.1 Damaged Paint Surfaces

The treatment shall be:

- Pre-clean the damaged or unpainted areas in accordance with Clause 3.1 of this Specification.
- Wire brush by hand and clean bare metal to the original standard of surface preparation.
- Inorganic zinc primers subject to mechanical damage or weld etc. shall be power tool cleaned to AS 1627 Part 2.
- Feather back by sandpapering or whip blasting the original coatings surrounding the damaged area over a 50mm distance. A rough surface shall be obtained on epoxy coatings.
- Clean surface to remove all dust.
- Build up a new paint system over the affected area with paints equal to those originally used having the same dry film thickness for each coat except for damaged inorganic zinc primers which shall be repaired with epoxy organic zinc rich paint to AS 2204 Type II which shall be applied within four hours of blast cleaning.
- The new coatings shall overlap the original coating over the 50mm prepared distance and shall be colour matched to the specified colour of the original coating.

5.2 Damaged Galvanised Surfaces

Damaged areas larger than 3mm in diameter shall be treated.

The treatment shall be:

- Prepare the surface by removing any weld slag followed by vigorous wire brushing the coating surrounding the damaged area over a 50mm distance.
- Clean surface to remove all dust.
- Apply two coats of organic zinc rich paint conforming to AS 3750.9 Type 2 to give a minimum dry film thickness of 100 microns.
- The area to be reinstated shall be colour matched to the surrounding finish colour with 40 microns of aluminium paint to the manufacturer's written instructions. Extent of area to be covered shall be as specified in Section 5.1 of this Specification.

5.3 Damaged Below Ground Steel Pipe External Surfaces

The treatment for damaged coatings shall be:

- Pre-clean damaged area and at least 100mm of the coating each side of the damaged area.

- Spirally wrap using Denso 500 Tape, or approved equivalent, over the damaged area and 100mm onto the coating on each side of the damaged area, using a 55% overlap to ensure double thickness of tape.

5.4 Buried Steelwork

The treatment for buried steelwork shall be in accordance with paint Specification S19 as follows:

- Pre-clean in accordance with Section 3.1 of this Specification.

- Abrasive blast clean to AS 1627, Part 4 - Class 2.5.

- Apply two coats of modified epoxy paint Interzone 954 or approved equivalent to a Minimum D.F.T. – 400 micron to a minimum of 500mm above buried line.

5.5 Inaccessible Surfaces

Surfaces which will be inaccessible after erection of other elements of the structures shall be painted prior to the installation of the obstructing item.

6.0 SURFACES WITH HIGH TEMPERATURES

6.1 Definition

Where the painted surface temperature is likely to exceed 150^0C but remain below 400^0C, then this shall be classified as requiring a high temperature resistant paint finish.

6.2 Abnormally High Temperatures

For temperatures in excess of 400^0C, the specialist advice of a paint coatings vendor must be sought and any surface coating so determined must be specifically referenced on any relevant drawing.

7.0 PAINTING SYSTEMS

7.1 Index of Systems

The surface preparation and painting of material shall be applied to all surfaces, unless otherwise stated and be carried out in accordance with the system specified in the following table and Sections 6.2 to 6.7 inclusive of this Specification.

Specific Area Painting Requirements

AREA NO.	AREA DESCRIPTION	SYSTEM	DESCRIPTION
19	Magnetite feed	S2	All steelwork and platework
19	Kiln off-gas Scrubbing	S3	All steelwork and platework
19	Soda Ash Addition	S2	All steelwork and platework
20	Roasting	S2	All steelwork and platework
20	Calcine Handling	S2	All steelwork and platework
25	Quenching Area	S3	All steelwork and platework
25	Quench Vessel (external)	S3	
	(internal)	S16	
25	Leach Vat internals	Not coated	Vat walls and floor plates
25	Leach Solution Storage	S2	All steelwork and platework
30	Desilication Area	S2	All steelwork and platework
30	Filter press support platform	S3	All steelwork and platework
35	AMV Precipitation	S2	All steelwork and platework
35	AMV Filtration	S3	All steelwork and platework
35	Amsul storage and handling	S3	All steelwork and platework
36	AMV Flash Dryer	S2	All steelwork and platework
40	V2O5 Production	S2	All steelwork and platework
41	V2O3 Production	S2	All steelwork and platework
45	FeV Production	S2	All steelwork and platework
All	Piperack steelwork	S2	All steelwork
All	Piperack buried steelwork	S19	All buried steelwork
All	Tankage (external)		As defined for plant areas above
All	Tankage (internal)		As defined on tank design drawings.
All	Pipework (internal)		As defined on piping drawings.
All	Pipework (external) except as listed below	S17	
19 25 30 All	Kiln off\gas scrubbing Leaching Desilication High Temperature Duct Work (>150^{0}C but <400^{0}C)	S18 S18 S18 S21	 As defined on plate work drawings

Other systems not covered above:

SYSTEM	PLANT AREA	EQUIPMENT/ITEM
No Paint	All Areas	Internals of bins, chutes, underpans, sumps, launders
Hot Dip Galvanised	All Areas	Floor grating, chequer plate, handrails
Manufacturer's Standard	All Areas	Mechanical Equipment, conveyor idlers
S5	Abrasive, Acidic or High chloride areas	Rubber lining for tanks, vessels, chutes, launders and pipework
S6	Below ground	Mild steel pipe below ground
S9	Concrete floors in Acid Handling Areas where indicated on drawings	
S20	All Areas	Handrail topcoat colour system

7.2 System S1

7.2.1 Surface Preparation

Pre-clean in accordance with Section 3.1 of this Specification.

Abrasive blast clean to AS 1627, Part 4 - Class 2.5.

7.2.2 Prime Coat (Final coat)

Apply one coat inorganic ethyl zinc silicate primer to AS 3750.15 of solvent based Interzinc 215 or approved equivalent

Minimum D.F.T. - 75 micron.

7.3 System S2

7.3.1 Surface Preparation

Pre-clean in accordance with Section 3.1 of this Specification.

Abrasive blast clean to AS 1627, Part 4 - Class 2.5.

7.3.2 Prime Coat

Apply one coat of epoxy zinc phosphate primer Intergard 251 or approved equivalent.

Minimum D.F.T. - 75 micron.

7.3.3 Final Coat

Apply one coat of Intergard 475HS high build epoxy or approved equivalent.

Minimum D.F.T. - 150 micron.

7.4 System S3

7.4.1 Surface Preparation

Pre-clean in accordance with Section 3.1 of this Specification.

Abrasive blast clean to AS 1627, Part 4 - Class 2.5.

7.4.2 Prime Coat

Apply one coat of epoxy zinc phosphate primer Intergard 251 or approved equivalent.

Minimum D.F.T. - 75 micron.

7.4.3 Final Coat

Apply two coats of Intergard 475HS high build epoxy or approved equivalent

Minimum D.F.T. - 300 micron.

7.5 System S4

7.5.1 Surface Preparation

Pre-clean in accordance with Section 3.1 of this Specification.

Abrasive blast clean to AS 1627, Part 4 - Class 2.5.

7.5.2 Prime Coat

Apply one coat inorganic ethyl zinc silicate primer to AS 3750.15 of solvent based Interzinc 215 or approved equivalent.

Minimum D.F.T. - 75 micron.

7.5.3 Final Coat

Apply one coat high build epoxy tank lining Interline 944 or approved equivalent.

Minimum D.F.T. - 150 micron

7.6 System S5

7.6.1 Surface Preparation

Grind smooth all welds to come in contact with rubber lining

Pre-clean in accordance with Section 3.1 of this Specification.

Abrasive blast clean to AS 1627, Part 4 - Class 2.5.

7.6.2 Rubber Lining

Apply rubber lining in accordance with rubber manufacturer's recommendations and Section 4.8 of this Specification.

7.7 System S6

7.7.1 Pipe

The external area of pipe shall be prepared and coated in accordance with system S10.

7.7.2 Welded Joints and Fittings

Pre-clean and coat with Denso Tape, in accordance with Section 4.9 of this Specification and manufacturers recommendations

7.8 System S7

7.8.1 Surface Preparation

Pre-clean in accordance with Section 3.1 of this Specification.

Hand tool clean to AS 1627, Part 7.

7.8.2 Prime Coat

Apply one coat of Interprime 198 zinc phosphate red oxide primer or approved equivalent.

Minimum D.F.T. - 50 micron.

7.8.3 Final Coat

Apply two coats of Interlac 645 alkyd enamel to colour specified or approved equivalent.

Minimum D.F.T. - 75 micron total

7.9 System S9

Concrete Floor Protection

7.9.1 Surface Preparation

Remove any oil or grease contamination

Captive blast clean to expose firmly held aggregate to industrial accepted standards. Allow to dry before application. Alternatively acid etch using 1 part commercial Muriatic acid and 2 parts clean water. Neutralise surface with fresh water. Allow to dry before application.

7.9.2 Finish Coat

Mix Epirez Supatuff HD hardener and compound as recommended by the manufacturer

Minimum of 2 coats required

Minimum 300 micron – total

Allow to cure for 7 days before subjecting to chemical exposure

7.10 System S10

7.10.1 Surface Preparation - Shop

Pre-clean in accordance with Section 3.1 of this Specification

Abrasive blast clean to AS 1627, Part 4 - Class 2.5

7.10.2 Pre-Construction Shop Primer (Optional)

Apply one cost of International Intergard 63 Epoxy Pre-Weld or approved equivalent

Maximum DFT – 25 micron

7.10.3 Surface Preparation - Site

Pre-clean in accordance with Section 3.1 of this Specification

Abrasive blast clean to AS 1627, Part 4 - Class 2.5 all bare metal areas and damage to Pre-weld primer. Alternatively sweep blast Pre-weld primer, where shop applied prior to site fabrication.

7.10.4 Final Coat

Apply 1 or more coats of International Interzone 954HS Amine Adduct cured epoxy or approved equivalent

Minimum DFT - 400 micron

Continuity test in accordance with AS3894 Method 1

7.11 System S11

7.11.1 Surface Preparation

Pre-clean in accordance with Section 3.1 of this Specification.

Abrasive blast clean to AS 1627, Part 4 - Class 2.5.

7.11.2 Prime Coat

Apply one coat of International Intergard 251 zinc phosphate primer or approved equivalent

Minimum D.F.T. - 75 micron.

7.11.3 Final Coat

Apply one coat of International Interzone 954HS Amine Adduct cured epoxy or approved equivalent.

Minimum D.F.T. - 400 micron.

7.12 System S13

7.12.1 Surface Preparation

Pre-clean in accordance with Section 3.1 of this Specification.

Abrasive blast clean to AS 1627, Part 4 - Class 2.5.

7.12.2 Prime Coat

Apply one coat of two pack catalysed epoxy primer, International Intergard 63 Epoxy Pre-Weld or approved equivalent

Maximum DFT – 25 micron

7.12.3 Final Coat

Apply one coat of ultra high build catalysed epoxy, International Interzone 485 or approved equivalent.

Typical D.F.T. - 1000 to 3000 micron, refer to drawing notes for specific applications.

7.13 System S14

7.13.1 Surface Preparation

Pre-clean in accordance with Section 3.1 of this Specification.

Abrasive blast clean to AS 1627, Part 4 - Class 2.5.

7.13.2 Final Coat

Apply two (2) coats of International Interline 961 Phenolic Epoxy or approved equivalent.

Minimum D.F.T. - 125 micron per coat.

7.14 System S15

7.14.1 Surface Preparation - Shop

Pre-clean in accordance with Section 3.1 of this Specification

Abrasive blast clean to AS 1627, Part 4 - Class 2.5

7.14.2 Pre-Construction Shop Primer (Optional)

Apply one cost of International Intergard 63 Epoxy Pre-Weld or approved equivalent

Maximum DFT – 25 micron

7.14.3 Surface Preparation - Site

Pre-clean in accordance with Section 3.1 of this Specification

Abrasive blast clean to AS 1627, Part 4 - Class 2.5 all bare metal areas and damage to Pre-weld primer. Sweep blast Pre-weld primer, where shop applied prior to site fabrication.

7.14.4 Final Coat

Apply two (2) coats International Interline 944 Amine Adduct cured epoxy tank lining.

Minimum DFT - 125 micron per coat

Continuity test in accordance with AS3894 Method 1

Note: over thick coatings are subject to cracking

7.15 System S16

7.15.1 Surface Preparation

Pre-clean in accordance with Section 3.1 of this Specification.

Abrasive blast clean to AS 1627, Part 4 - Class 2.5.

7.15.2 Prime Coat

Apply one coat of epoxy primer International Intergard 908 or approved equivalent

Maximum DFT – 50 micron

7.15.3 Final Coat

Apply two (2) coats of abrasion resistant non stick epoxy International Interline 912 or approved equivalent.

Minimum DFT - 300 micron total

Continuity test in accordance with AS3894 Method 1

7.16 System S17

7.16.1 Surface Preparation

Pre-clean in accordance with Section 3.1 of this Specification.

Abrasive blast clean to AS 1627, Part 4 - Class 2.5.

7.16.2 Prime and Intermediate Coat

Apply one coat of modified epoxy paint Interzone 954 or approved equivalent.

Minimum D.F.T. - 150micron.

7.16.3 Final Coat

Apply one coat of Interthane 990 or approved equivalent with colour tint as specified.

Minimum D.F.T. - 75 micron.

7.17 System S18

7.17.1 Surface Preparation

Pre-clean in accordance with Section 3.1 of this Specification.

Abrasive blast clean to AS 1627, Part 4 - Class 2.5.

7.17.2 Prime and Intermediate Coat

Apply one coat of modified epoxy paint Interzone 954 or approved equivalent.

Minimum D.F.T. – 300 micron.

7.17.3 Final Coat

Apply one coat of Interthane 990 or approved equivalent with colour tint as specified.

Minimum D.F.T. - 75 micron.

7.18 System S19

7.18.1 Surface Preparation

Pre-clean in accordance with Section 3.1 of this Specification.

Abrasive blast clean to AS 1627, Part 4 - Class 2.5.

7.18.2 Prime and Intermediate Coat

Apply two coats of modified epoxy paint Interzone 954 or approved equivalent.

Minimum D.F.T. – 400 micron.

7.19 System S20

7.19.1 Surface Preparation

Pre-clean in accordance with Section 3.1 of this Specification.

Whip blast clean to remove oxidation and glazing on order to provide suitable surface for paint adhesion.

7.19.2 Prime and Intermediate Coat

Apply one coat of modified epoxy paint Interseal 670 or approved equivalent.

Minimum D.F.T. – 150 micron.

7.20 System S21

7.20.1 Surface Preparation

Pre-clean in accordance with Section 3.1 of this Specification.

Abrasive blast clean to AS 1627, Part 4 - Class 2.5.

7.20.2 Prime Coat

Apply one coat of inorganic zinc silicate International Interzinc 233 or approved equivalent

Maximum DFT – 70 micron

7.20.3 Final Coat

Apply one (1) coats of single pack heat resistant silicone aluminium International Intertherm 50 or approved equivalent.

Minimum DFT - 50 micron

8.0 COLOUR SCHEDULE

The following colours shall be used for paintwork.

Area	Colour
Structural steelwork – bins, chutes, underpans sumps – Dry Areas	Mid-Grey N52
Structural steelwork – bins, chutes, underpans sumps, tanks, vessels – Wet Areas	Mid-Grey N52
Top and lower handrails, posts, kick plates, monorails, moving parts of shuttles, plate and mesh guards – all Areas	Golden Yellow Y14
Ductwork	Mid-Grey N52
Equipment	Maker's colours
Piping	In accordance with AS 1345
Fire Mains	Signal Red R13