



TMS76

**Supplement to the WSA 201
Manual for Selection and
Application of Protective
Coatings**

Standard Technical Specification



Document Change History

Version History

Version	Author	Issue Purpose	Signature	Date
1	Rahim Janfada	Original issue		6 Sept 2011
2	Paul Gellatly	Non-printable symbols edited		24 Mar 2014
3	Jose Castineyra	Original issue (as Supplement)		7 June 2018

Document Consultation

Version	Date	Name	Comments	
			Received	Incorporated
3	13 Dec 2017	Harald Kemmetmuller	Y	Y
3	13 Dec 2017	Steve Bourke	Y	Y
3	13 Dec 2017	Scott Stevens	N	N

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1 Scope of Document

This document is QUU's supplement to WSA 201 Manual for Selection and Application of Protective Coatings version 2.1 published by Water Services Association of Australia (WSAA) in July 2017. This manual is available from WSAA.

WSA 201 and this supplement shall be used for all works involving selection and application of protective coatings in QUU assets.

This document contains QUU's:

- Amendments to WSA 201;
- Approved protective coating products; and
- Recommended standard colours for various assets.

Where there are contradicting requirements between WSA 201 and this document, the requirement specified in this document shall take precedence. In the case of any omissions or ambiguities in the WSA 201, this document or any other QUU technical specifications, seek clarification and instruction from QUU.

2 Amendments to WSA 201

The following amendments to the WSA 201-2017-2.1 shall be considered.

Table 2-1 List of amendments to WSA 201 (2017-2.1 edition)

Page 72, Section 8.13	Replace the primer for concrete substrate with: Concrete epoxy primer [P4] (200 µm nominal)			
Page 73, Section 8.14	Replace the primer note for concrete, other metals, timber plastics, previous coatings substrates with the following: Consult supplier			
Page 79, Section 8.20	Replace the primer note for concrete substrate with the following: Concrete epoxy primer [P4] (200 µm nominal)			
Page 90, Section 8.30	Replace the coating thickness requirements (rows 5 to 8 of the table) with the following:			
	Item	Nominal DFT	Min DFT	Max DFT
	Intermediate Coat	500 µm	375 µm	750 µm
	Topcoat	500 µm	375 µm	750 µm
	Total DFT	1000 µm	750 µm	1500 µm

3 Approved Protective Coating Products

A list of approved protective coating products can be found in this section. These coatings have been assessed to:

- have satisfactory long-term track records;
- originate from quality assured manufacturers and/or suppliers;
- be part of a global product range; and
- have relevant products certifications issued by 3rd party accreditation bodies.

In the case of all listed products are not available, other products that can be demonstrated to have at least equal performance to the ones specified in the list may be used, subject to prior approval from QUU.

All products used within a selected coating system should originate from a single supplier where possible. Importantly, they must be compatible with each other and applied strictly in accordance with WSA 201 and the Supplier's specification.

QUU reserves the right to make any changes to the content of the list at any time without giving notice or explanation.

Table 3-1 List of Approved Protective Coating Products

P1	Zinc rich epoxy primer	Interzinc 72 Interzinc 52	Barrier Barrier Plus	Zincanode 402	Galvit EP100	Carbozinc 858
P2	Epoxy zinc phosphate primer	Intercure 200	Penguard Special Jotaprime 510	Duremax GPE Zinc Phosphate	Epinamel PR360 ZP	Carboguard 504 ZP
P3	Non-inhibitive / holding epoxy primer	Interline982 Intergard 269	Jotaprime 505	Luxepoxy 4 White Primer / Durebild STE	Epinamel PR250	Carboguard 504 Buff Phenoline 311
P4	Concrete epoxy primer	Ceilmate 680	Penguard ClearSealer	Durebild STE	Epinamel CP 502	Carboguard 1340
P5	Waterborne acrylic primer/sealer	Intercryl 853		Acrylic Sealer Undercoat	Aqua Prep PSU	Resene Quick Dry
P6	Vinyl ester primer	Ceilmate 380				
P7	Water based Epoxy Primer			Duration X21 / Duration P23	Ardex WPM300	
P8	Alkyd zinc phosphate metal primer	Interprime 198	Jotaprime 250	Metalshield HB	Duranamel PR9	Multiguard GP5
P9	Galvanised iron primer		Jotun Galvanite	Galvanised Iron Primer	Galva Link Aqua Prep Gal Iron Primer	ECZ Cold Galvanizing
P10	Inorganic zinc silicate			Durezinc i90	Galvit ES600	Carbozinc 11 WB
P11	Silane / Siloxane					Sikagard 705L
C1	Surface tolerant epoxy	Interplus 356 Interplus 1180	Jotamastic 87	Durebild STE	Epinamel DTM985	Carbomastic 615
C2	High build epoxy	Interplus 1180	Jotacote 605	Durebild HSE	Epinamel EB600	Carboguard 690
	High Build Epoxy (drinking water use)	Interline 850	Jotacote 605	Duremax GPE	Epinamel DTM985	Carboguard 690 (N53 White)

C3	High build solvent free epoxy	Interzone 954	Jotacote 410	Luxepoxy UHB	Epinamel TL710	Phenoline 341
	High build solvent free epoxy (drinking water use)	Interline 975	Tankguard 412		Epinamel DTM985	Phenoline 341
C4	Ultra high build epoxy	Interzone 396	Jotacote UHB	Luxepoxy UHB	Epinamel TL770 SF	Carboguard 696 UHBE Plastite 4500 Carboguard 696 UHBE
	Ultra high build epoxy (drinking water use)	Interline 975	Jotacote UHB			Carboguard 696 UHBE
C5	Ultra High Build epoxy				Epinamel UHB1000	
C6	Ultra high build vinyl ester	Interline 871 Ceilcote Flakeline 242HB				Plasite 4110 Plasite 4310
C7	High build chlorinated rubber			Luxachlor HB		
C8	Ultra high build epoxy / polyurethane mortar	Polibrid 705E		Luxepoxy Filler		Fernco Ultracoat Hychem TL5 Epirez 733 UHB
C9	Water based epoxy			Enviropoxy WBE / Luxafloor WB	Epinamel CF720	Altra-Shield WB-V
C10	Alkyd aluminium leafing grade	Intertherm 891		Industrial Aluminium		Multiguard GP14
C11	Polymer modified bitumen					Liquid Rubber
C12	Calcium aluminate cement					MasterEmaco S 880 Sewpercoat Renderoc CAC Quadex Aluminaliner Plus Bisley Extrema-Dur S1 & S3

C13	Anti-abrasion ceramic filled epoxy/polyurethane						Belzona CeramAlloy CL	1321
	Anti-abrasion ceramic filled epoxy/polyurethane (drinking water use)						Belzona Chemclad XC	1341
T1	Gloss 2-pack acrylic polyurethane	Interthane 990 Interthane 870 (MIO)	Imperite 300 Hardtop AS	Quantum 221/ Acrathane IF	Poly U 400 Poly U 750 Poly U 775 MIO	Carbothane 134HG		
T2	Polysiloxane	Interfine979				Carboxane 2000	PSX 700	
T3	Waterborne gloss acrylic	Intercryl 853	Jotun Acrylic Gloss	Weathershield	Wattyl Solargard Wattyl Sunfast	Resene Hi-Glo		
T4	Flexible High Build acrylic				Grano Skin Membrane			
T5	Anti-graffiti topcoat	Interfine 1080		Weathermax HBR / Luxathane HPX / Acrathane IF	Poly U 400 AGC	Carbothane 130 + Easy-Clean SX	PSX 700	
T6	Alkyd enamel	Interlac 665		Metalshield QD / Metalshield Premium	Duranamel BR22	Multi_Gard GP14		
T7	Epoxy novolac	Ceilcote Flakeline 662				Phenoline 353 LTE Plastite 4550	Sikagard-63N Belzona 4311	
T8	HDPE / PVC liner						AKS Plastiline	
T9	Petrolatum / bitumen / visco-elastic tape wrap					Carbowrap Petrolatum Tape	DensoTape PetroGardTape DensopolTape Stopaq Wrappingband	
T10	Heat shrinkable polyolefin coatings						Denso 50HSS Canusa Wrapid Tape	
T11	Polyurea			Flexituff			ERA Polymer AL 950	

4 Standard Colours

The following table provides recommended colours for asset and equipment.

Table 3.2 List of Standard Colours

Buildings	G66	Environmental green
Compressors/receivers	Y44	Salmon Pink
Cranes, gantry	Y14	Golden Yellow
Hand rails, ladders, platforms, billboards (if required to be painted and not galvanised)	Y14	Golden Yellow
Mechanical equipment	T45	Cootamundra
Switchboards		Ref TMS 60
Motors, pumps, gear boxes – non immersed	T45	Cootamundra
Pipes, valves and fittings – above ground in network (note 1, 2 and 3)		
Water and recycled water	G21	Jade
Steam	N24	Silver Grey
Fuel and lubricating oils	X53	Golden Tan
Gases	Y44	Sand
Acids and alkalis (corrosive)	P23	Lilac
Air	B25	Aqua
Sewage, waste	N61	Black
Fire services	R13	Signal Red
Electrical	X15	Orange
Communications	N14	White
Steel works	N24	Silver Grey
Tanks and vessels		

External	G66	Environmental Green
Internal	N14	White

Notes:

1. Some pipes and fittings, such as ones made of polyethylene and coated with fusion bonded polyethylene, are not suitable to be painted.
2. Pipe content identification colour and marking shall be in accordance with AS 1345. Other colours or marking may be used to identify pipes of different contents but similar in nature, which run in parallel of or close to each other. For example, pipes of different acids. The selection of alternative colours must be considered carefully so they do not introduce potential hazardous conflict with specified colours in AS 1345.
3. Plastic pressure pipes exposed to UV require additional paint protection.