

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

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# 1 Introduction

## 1.1 Sydney Water's Supplement

This document is Sydney Water's supplement to *WSA 201 Manual for Selection and Application of Protective Coatings* published by Water Services Association of Australia (WSAA). WSA 201 is available from WSAA.

WSA 201 together with this supplement replaces PCS 100, which is the previous Sydney Water's Protective Coating Standard. WSA 201 and this supplement shall be used for all works involving selection and application of protective coatings in Sydney Water.

This document contains Sydney Water's:

- List of approved protective coating products (mandatory);
- List of standard colours for assets (informative); and
- List of equivalent systems specified in PCS 100 (informative);

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 or this document, seek clarification and instruction from Sydney Water.

## 1.2 Alignment with WSAA National Codes and Standards

Sydney Water supports Water Services Association of Australia (WSAA) national codes standards initiative. It is directed at developing a series of national standard documents covering design and construction of water and wastewater infrastructure. In September 2013, WSAA published a new document called *WSA 201 Manual for Selection and Application of Protective Coatings*.

Over the years, a number of Sydney Water's standards have been replaced with WSAA national codes and standards. However given regional differences in matters such as operating licence constrains, topographical and meteorological conditions, environmental and other legislation, individual water agencies will continue to have amended versions or supplementary documents, such as this document.

## 2 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 3<sup>rd</sup> 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 the Sydney Water.

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.

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

**Table 1 List of Approved Protective Coating Products**

Code	Description	International	Jotun	PPG	Dulux	Wattyl	Others
P1	Zinc rich epoxy primer	Interzinc 72 Interzinc 52	Barrier Barrier Plus	Amercoat 68K Amercoat 471	Zincanode 402 Zincanode 202	Galvit EP100	
P2	Epoxy zinc phosphate primer	Intercure 200	Penguard Special Jotaprime 510	Amercoat 182 ZPK	Duremax GPE Zinc Phosphate	Epiname1 PR360ZP	
P3	Non-inhibitive epoxy primer	Interline 982 Intergard 269	Jotaprime 505	Amercoat CC24	Luxepoxy 4 White Primer	Epiname1 PR250	
P4	Concrete epoxy primer	Ceilmote 680 Interline 982 Interseal 1036 Interplus 1180	Penguard ClearSealer	Amerlock 400 Amerlock 2K	Durebild STE		
P5	Waterborne acrylic primer/sealer	Intercryl 853		Taubmans Ultraprep Pro	Acrylic Sealer Undercoat	Acrylic Sealer Undercoat	
P6	Vinyl ester primer	Ceilmote 380		Permaclad VE Primer EPL			
P7	Water based epoxy primer						
P8	Alkyd zinc phosphate metal primer	Interprime 198	Jotaprime 250	Amercoat 185K	Metalshield HB	Duranamel PR10	
P9	Galvanised iron primer		Jotun Galvanite	Taubmans Prep Right	Galvanised Iron Primer	Galva-Link	
P10	Inorganic zinc silicate					Aquagalv	Altex Carbozinc 11 WB
C1	Surface tolerant epoxy	Interplus 356 Interplus 1180	Jotamastic 87	Amerlock 400 Amerlock 2K	Durebild STE	Epiname1 DTM985	
C2	High build epoxy	Intercure 420 Interplus 1180	Jotacote 605	Amerlock 400 Amerlock 2K		Epiname1 EB600	
	High build epoxy (potable water use)	Interline 850		Amerlock 400	Duremax GPE	Epiname1 TL710	
C3	High build solvent free epoxy	Interzone 954 Interline 975	Jotacote 410	Amercoat CC703/3	Luxepoxy STL	Epiname1 TL770SF	
	High build solvent free epoxy (potable water use)	Interline 975	Tankguard 412	Amercoat CC703/3	Luxepoxy STL	Epiname1 TL770SF	
C4	Ultra high build epoxy	Interzone 396	Jotacote UHB	Amercoat CC703/2		Epiname1 UHB1000	
	Ultra high build epoxy (potable water use)	Interline 975	Jotacote UHB	Amercoat CC703/2	Luxepoxy UHB		
C6	Ultra high build vinyl ester	Interline 871 Ceilmote Flakeline 242HB	Baltoflake	Permaclad VE504 GF EPL	Steelshield 2000		
C7	High build chlorinated rubber		Jotacote 740	Acidol 340	Luxachlor HB		
C8	Ultra high build epoxy / polyurethane / polyurea mortar	Polibrid 705E			Flexituff		Fernco Ultracoat Hychem TL5
C9	Water based epoxy			Amercoat 335	Enviropoxy WBE		
C10	Alkyd aluminium leafing grade	Intertherm 891			Industrial Aluminium		
C11	Polymer modified bitumen						Liquid Rubber
C12	Calcium aluminate cement						BASF Shotpatch 80 SP Kerneos Sewpercoat Parchem Sewpercoat

Code	Description	International	Jotun	PPG	Dulux	Wattyl	Others
C13	Anti-abrasion ceramic filled epoxy/polyurethane						Belzona 1321 CeramAlloy CL
	Anti-abrasion ceramic filled epoxy/polyurethane (potable water use)						Belzona 1341 Chemclad XC
T1	Gloss 2-pack acrylic polyurethane	Interthane 990 Interthane 870 (MIO)	Imperite 300 Hardtop AS	Amercoat 450K Sigmadur 550	Weathermax HBR	Poly U400	
T2	Polysiloxane			PSX 700			
T3	Waterborne gloss acrylic	Intercryl 853	Jotun Acrylic Gloss	Taubmans All Weather	Weathershield X10	Wattyl Solagard Wattyl Sunfast	
T4	Flexible high build acrylic	Intercryl 988		Taubmans Armawall	Acrashield HB		
T5	Anti-graffiti topcoat	Interfine 1080	Imperite 300	PSX 700 Amershield Clear	Quantum Clearcoat	Poly U400	
T6	Alkyd enamel	Interlac 665		Taubmans Ultra Enamel	Super Enamel	Duranamel BR22	
T7	Epoxy novolac	Ceilmate Flakeline 662					Sikagard 63N
T8	HDPE / PVC liner						AKS Plastiline
T9	Petrolatum / bitumen / visco-elastic tape wrap						Denso Tape PetroGard Tape Densopol Tape Stopaq Wrappingband
T10	Heat shrinkable polyolefin coatings						Denso 50HSS Canusa Wrapid Tape

### 3 Standard Colours

The following table provides recommended colours for asset and equipment.

**Table 2 List of Standard Colours**

Item	Colour to AS 2700	
Buildings - process units	G66	Environmental Green
Compressor/receiver	Y44	Salmon Pink
Crane, gantry	Y14	Golden Yellow
Electrical cabinets/SCA's		
- External	---	Dulux Ocean Mist 96183250 RAL9018
- Internal	N14	White
Hand rails, ladders, platforms, bollards [if required to be painted and not galvanised]	Y14	Golden Yellow
Mechanical/electrical equipment	T45	Cootamundra
Motors, pumps, gear boxes – non immersed	T45	Cootamundra
Pipes, valves and fittings – above ground in network (note 1)	G66	Environmental Green
Pipes, conduits and ducts in facilities (notes 2 & 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
Steelworks	N24	Silver grey
Tanks and vessels		
- External	G66	Environmental Green
- Internal	N14	White
Vent shafts [if required to be painted]	G66	Environmental Green

Notes:

1. Some pipes and fittings, such as ones made of polyethylene and coated with fusion bonded polyethylene, are not suitable to be overcoated.
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 an 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.

## 4 Equivalent System

The following table provides guidance when choosing an equivalent system for works that have been specified with the previous PCS 100.

**Table 3 List of equivalent coating systems**

Previous PCS 100 Coating Systems	WSA 201 Coating Systems
CS-01	PUR-B
CS-02	-
CS-03	PUR-A
CS-04	EHB-A
CS-05	EHB-SB
CS-06	EHB-SF
CS-07	EUH
CS-08	-
CS-09	EPM
CS-10	EPM
CS-11	ZRE
CS-12	EPM
CS-13	CLR
CS-14	ACL
CS-15	ALK
CS-16	EWB
CS-17	-
CS-18	PUR-A
VES	VES
NOV	NOV
GAL	GAL
TSZ	TSZ
PMB	PMB
EPM	EUH
CPL	CPL
CAC	CAC

Refer to Section 2.3 in WSA 201 for selecting a suitable replacement coating system where there is no direct equivalent coating system.

## Document control

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## Change History

Version	Date	Description of change	Approved by
1	23/12/2010	First issue	JC
2	11/10/2013	Converted to Sydney Water's supplement to WSA 201	PG