Memorandum | City West Water

Date:	8 April 2013
To:	Technical Advisory Group
From:	Mohamed Yoosuf
RE:	**Canusa Heat Shrinkable Sleeves and associated corrosion protection products**

1. Introduction

This paper seeks TAG endorsement for the Canusa Heat Shrinkable Sleeves together with the primer and profiling filler that accompany them, for use in water and sewer network within City West Water's (CWW) licensed area.

The following products are assessed:

a). Canusa WLS Heat Shrink Sleeve

b). Canusa AquaShield^{TM} AQW Heat Shrink Sleeve

c). UCC Protek Butyl (Multi) Primer

d). UCC Protek Butyl Mastic Strip

2. Background

Universal Corrosion Coatings Pty Ltd (UCC) has recently entered into an arrangement with Pentair (formerly Tyco Water) where Pentair will supply Canusa Heat Shrinkable product exclusively, for use as the field joint coating on SintaKote Pipe. As such UCC has an order to supply product for a water pipeline project associated with the Regional Rail Project, which comes under the jurisdiction of CWW.

UCC contacted Peter Wade (Corrosion Manager, Asset Performance) in August 2012 to permit the use Canusa-WLS Heat Shrinkable Sleeve. After review on material data sheet, Manager Corrosion recommended for a dispensation that was finally issued by the Manager Standards to use Canusa-WLS Heat Shrinkable Sleeve in Regional Rail Project.

2. Company Information

2.1 Manufacturer – Canusa-CPS

For more than 35 years, Canusa-CPS has been a leading developer and manufacturer of specialty pipeline coatings for the sealing and corrosion protection of pipeline joints and other substrates. Canusa-CPS products are manufactured to the relevant quality standards and are available in a number of configurations to accommodate many specific project applications.

Canusa-CPS is an ISO 9001:2008 endorsed company by SAI Global (Certificate No. CERT-0061448) for manufacture and distribution of corrosion protection products. Refer to Appendix A for the certificate.

2.2. Supplier

UCC provide solutions to corrosion and material degradation issues across the Oil and Gas, Water, Energy, Marine, Mineral Processing and Civil Infrastructure sectors. UCC are uniquely innovative when it comes to solving corrosion and material degradation problems associated with infrastructure assets.

UCC was founded in 2008 by Nasa Chaabani at the instigation of Canusa-CPS, a Division of Bredero Shaw, a global Canadian Coatings Corporation.

UCC offer a complete range of corrosion protection solutions incorporating;

- The UCC Petrolatum System for Pipe, Valves and Fittings
- The Uniflex Bitumen Wrapping System for pipework.
- The Unilen Self Amalgamating Wrapping System for pipework.
- Canusa Heat Shrinkable Sleeves
- Canusa CRP Pipeline Coating Repair Patch
- Canusa HBE-95 High Build Pipeline Epoxy

Additionally UCC offer a range of civil products including;

- UCC JointSeal Butyl Rubber Sealing Profiles for Precast Concrete Manhole Elements
- UCC MightyPoxy Construction Epoxy Adhesives
- UCC Uniflex Pro Urethane Construction Adhesive / Sealant

3. Product Information

The following products are assessed:

- Canusa WLS Heat Shrink Sleeve
- Canusa AquaShield-AQW Heat Shrink Sleeve
- Primer - UCC Protek Butyl (Multi) Primer (Pentair always recommend the use of a primer under heat shrink sleeves)
- Profiling Filler - UCC Protek Butyl Mastic Strip (This is used to profile weld collars etc. prior to shrinking the sleeve)

Both WLS and AquaShield-AQW sleeves have a MDPE (medium density polyethylene) backing. WLS has been used on oil, gas and water pipelines around Australia for a long time.

AquaShield-AQW is a more recent innovation designed specifically for larger diameter water mains where pre heat can be an issue. The lowered pre heat requirement for AquaShield-AQW lends itself to Water Main Applications.

Required pre-heat for AquaShield-AQW is 40°C and for WLS it is 65°C. On larger water mains (say > DN 450) because of the greater surface area it can be challenging to get and maintain 65°C particularly when there is a combination of low ambient temperatures and wind chill.

There is no definitive diameter regarded as “large”. However in practical terms it is easier to get the required pre-heat on $\leq$ DN 450 water mains.

3.1 Canusa WLS Heat Shrink Sleeve

Canusa WLS Heat Shrink Sleeve is a Mastic Adhesives (with MDPE backing) with minimum installation temperature of 65^{o} C. WLS falls under the CanusaWrap^{TM} family group. As such it is proposed to only use this product on water mains $\leq$ DN450

CanusaWrap^{TM} is a wraparound sleeve with a separate closure designed for corrosion protection of buried and exposed steel pipelines. CanusaWrap^{TM} is supplied in bulk rolls consisting of a crosslinked polyolefin backing, coated with a protective heat activated adhesive. Once installed, the system effectively bonds and protects steel substrates and common main line pipe coatings including polyethylene and fusion bonded epoxy.

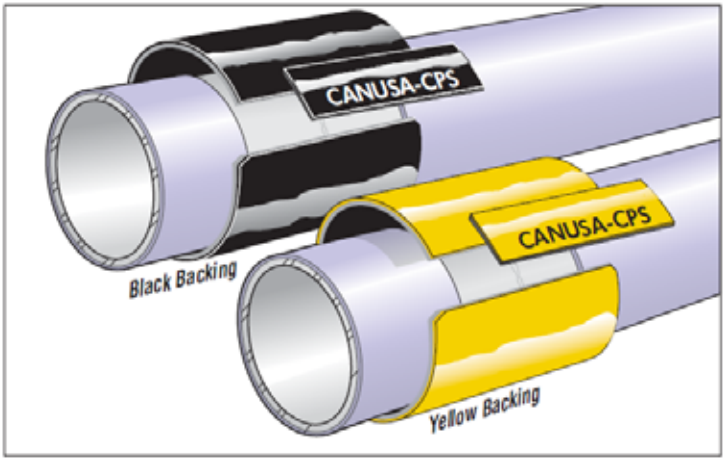

Figure 1 CanusaWrap^{TM} – Two-piece protective bulk roll with separate closure corrosion protection sleeves for water pipelines

3.1.1 Features & benefits

Long term Corrosion Protection

CanusaWrap^{TM} provides excellent resistance to cathodic disbondment resulting in effective long term corrosion protection. The high performance crosslinked backing, in combination with a broad range of adhesives, can be engineered for regular or high stress environments. Once installed, CanusaWrap^{TM} provides the structural integrity of a seamless tube, and provides the substrate with durable protection against abrasion and chemical attack.

3.1.2 Flexibility on the Job Site

Since CanusaWrap^{TM} is supplied in bulk rolls, just-in-time customised lengths can be quickly cut in the field to protect any pipe size. This flexibility results in reduced inventories and cost savings on the job site. CanusaWrap^{TM} is also available in a high shrink ratio for high profile joint protection.

3.1.3 Easy field installation

CanusaWrap^{TM} can be installed quickly and easily in most environments. Since no special taping, priming or operator equipment is required, product installation is quick and labour costs are kept to a

minimum. CanusaWrap™ and the closure seals area available in yellow with a thermochromic indicator and a patented Windowed feature which visually confirms optimum installation.

Figure 2: CanusaWrap WLS applied on the Melbourne Water Eastern Treatment Plant at Carrum Downs, South East Melbourne

3.2 Canusa Aqua-Shield™ AQW (Corrosion protection sleeves for water pipelines)

Aqua-Shield-AQW is a family of heatshrinkable sleeve products that have been specifically designed for the corrosion protection of large diameter (> DN 450) water pipelines.

Various product configurations are available that utilize a crosslinked polyolefin backing, coated with a protective, heat-activated adhesive which effectively bonds to metallic substrates and common pipeline coatings.

- Aqua-Shield-AQW is used for field joints.
- The other product configurations such as Aqua-Shield-HS, Aqua-Shield-FPK and Aqua-Shield-FF are intended for fittings, not field joints. These products are not included in this assessment.

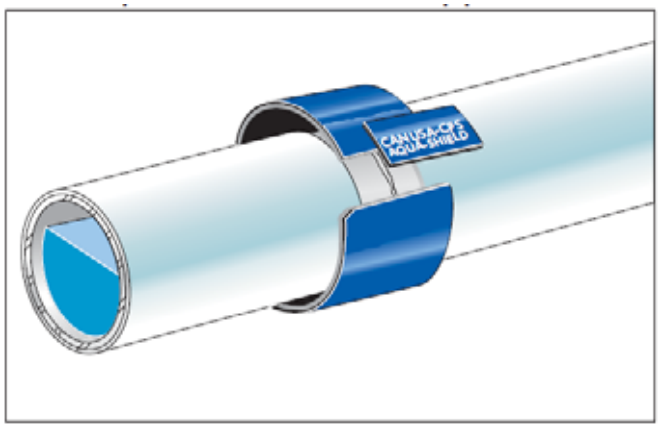

Figure 3 Aqua-Shield-AQW – Corrosion protection sleeves for water pipelines

Figure 4: WaterCorp Bend (AquaShield-AQW Blue)

Figure 5: WaterCorp Bend (AquaShield-AQW Blue)

Figure 6: Stirling Main is about 100km South of Perth. (AquaShield-AQW Blue)

Figure 7: Stirling Main is about 100km South of Perth. (AquaShield-AQW Blue)

Figure 8: Melbourne Water Sugarloaf Pipeline runs from Goulburn Valley to Yan Yean Reservoir Melbourne (AquaShield-AQW Blue)

3.2.1 Features & benefits

Long term Corrosion Protection

Once installed, Aqua-Shield-AQW provides durable protection against abrasion and chemical attack. The high performance crosslinked backing provides the superior abrasion resistance and mechanical strength required for water transmission and distribution lines.

Aqua-Shield-AQW effectively covers and protects the pipe surface to prevent corrosion. Since no special primers are required, less time is required for installation.

3.2.2 Assured Performance

Aqua-Shield-AQW products meet or exceed the requirements of AWWA standard C216-*07 Heat Shrinkable Cross Linked Polyolefin Coatings For The Exterior Of Special Sections, Connections, & Fittings.*

3.3 UCC Protek Butyl (Multi) Primer

Pentair (formerly Tyco Water) always recommend the use of a primer under heat shrink sleeves.

3.4 UCC Protek Butyl Mastic Strip

This is used to profile weld collars etc. prior to shrinking the sleeve.

Refer to Appendix B for the technical brochures and Material Safety Data Sheets of all the above four products (i.e. Canusa WLS heat shrink sleeve, Canusa Aqua-Shield, Primer and Profiling Filler).

4. Industry Experience

Canusa Heat Shrink sleeves have been used extensively in the Water Industry in Australia for around 25 years and have featured on some notable projects such as;

- Sugarloaf Pipeline (VIC)
- Northern Network Alliance (QLD)
- South West Regional Pipeline (QLD)
- South Australian Desalination Pipeline (SA)

WaterCorp, WA has just recently specified the exclusive use of Canusa Heat Shrink sleeves (i.e. for all Field Joint Coating on SintaKote pipes.

Pentair is currently in the process of amending their SintaKote Handling and Installation Manual to endorse Canusa Heat Shrink Sleeves exclusively for Field Joint Protection on SintaKote Pipes.

The following MRWA (Melbourne Retail Water Agencies) Standard Drawings describe the application of the corrosion protection heat shrink sleeves (Canusa WLS and Aqua-Shield-AQS) on water pipeline assets:

- MRWA-W-306A – Flange arrangements
- MRWA-W-400 – Steel pipe jointing

5. Recommendation

It is recommended that TAG endorse the following products:

a). Canusa WLS Heat Shrink Sleeve

b). Canusa Aqua-Shield-AQW Heat Shrink Sleeve

c). UCC Protek Butyl (Multi) Primer

d). UCC Protek Butyl Mastic Strip – Profiling Filler

The above products will be uploaded onto MRWA Products Web Portal as shown in Appendix C.

Mohamed Yoosuf
Standards & Design
Engineering

Endorsed by

Robert Jagger
Manager Standards
Engineering

Ross Carruthers
Manager Standards & Design
Engineering

APPENDIX A

CERTIFICATE OF REGISTRATION

This is to certify that

Canusa-CPS

operates a

Quality Management System

which complies with the requirements of

ISO 9001:2008

for the following scope of registration

The registration covers the Quality Management System for the Manufacture and distribution of corrosion protection products.

Registered Sites:	**Canusa-CPS** **A Division of Shawcor Ltd.** 455 West Airport Road Huntsville, Ontario P1H 1Y7 Canada	**Canusa-CPS** 400 Centre Street Burks Falls, Ontario P0A 1C0 Canada
Certificate Number:	CERT-0061448	CERT-0061448
File Number:	002539	1064301
Issue Date:	February 9, 2012	February 9, 2012
Original Certification Date:	May 24, 1996	July 25, 2007
Current Certification Date:	March 23, 2012	March 23, 2012
Certificate Expiry Date:	March 22, 2015	March 22, 2015

Chris Jouppi
President,
QMI-SAI Canada Limited

Guillaume Gignac, ing.f
Vice President, Corporate Operations, Accreditation & Quality
QMI-SAI Canada Limited

Certified System

ANAB ACCREDITED

ISO 9001

Registered by:
SAI Global Certification Services Pty Ltd, 286 Sussex Street, Sydney NSW 2000 Australia with QMI-SAI Canada Limited, 20 Carlson Court, Suite 100, Toronto, Ontario M9W 7K8 Canada (SAI GLOBAL). This registration is subject to the SAI Global Terms and Conditions for Certification. While all due care and skill was exercised in carrying out this assessment, SAI Global accepts responsibility only for proven negligence. This certificate remains the property of SAI Global and must be returned to them upon request.
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SAI GLOBAL

APPENDIX B

CANUSA-CPS
A SHAWCOR COMPANY

Installation Guide

Aqua-Shield™ AQW

Two-piece protective bulk roll with separate closure

Product Description

1

Aqua-Shield™ AQW is typically shipped in pre-cut lengths. Closures are shipped pre-cut with the sleeves. The adhesive is protected from contamination by an inner liner.

Storage & Safety Guidelines

2

To ensure maximum performance, store Canusa products in a dry, ventilated area. Keep products sealed in original cartons and avoid exposure to direct sunlight, rain, snow, dust or other adverse environmental elements. Avoid prolonged storage at temperatures above 35°C (95°F) or below -20°C (-4°F). Product installation should be done in accordance with local health and safety regulations.

These installation instructions are intended as a guide for standard products. Consult your Canusa representative for specific projects or unique applications.

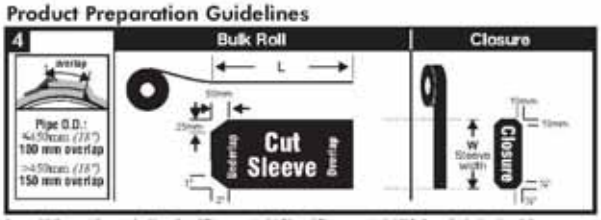
Equipment List

3

Propane tank, hose, torch & regulator.
Appropriate tools for surface abrasion.
Knife, roller, rags & approved cleaner.
Digital thermometer with rubber probe.
Standard safety equipment; gloves, goggles, hard hat, etc.

Product Preparation Guidelines

4



As a guideline, cut the required lengths of Sleeve material (L) and Closure material (W) from the bulk roll as follows:

L = Coated Pipe circumference + overlap dimension **W = Sleeve Width**

Refer to chart below for pipe O.D. and overlap dimensions

Ensure that the sleeve and closure are not damaged or contaminated. Trim corners as shown (optional).

Surface Preparation

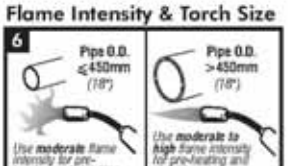
5

Clean exposed steel and adjacent pipe coating with cleaner to remove the presence of oil, grease, and other contaminants. Changes in profile at butt-weld stops and bell & spigot details should be filled with an approved filler/gap sealant prior to sleeve application.

Pipe O.D.	Overlap
≤ 450 mm (18")	100 mm (4")
450 mm - 1500 mm (18"-60")	150 mm (6")
1500 mm - 3800 mm (60"-150")	300 mm (12")
>3800 mm (150")	600 mm (24")

Flame Intensity & Torch Size

6



*Use **moderate** flame intensity for pre-heating and shrinking.*

*Use **moderate to high** flame intensity for pre-heating and shrinking.*

Minimum Torch Size: **150,000 BTU/hr.**

Minimum Torch Size: **300,000 BTU/hr. >1500mm (60") use 2 torches.**

Surface Preparation

7

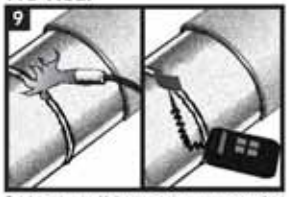
Ensure that the pipe is dry before cleaning. The steel joint area must be cleaned to a minimum of a wire brush finish. It is recommended to lightly abrade (with a hand tool) the pipe coating adjacent to the weld area to a distance of 50mm (2") beyond each end of the sleeve width.

8

Wipe clean or air blast the steel and pipe coating to remove foreign contaminants.

Pre-Heat

9



Pre-heat the steel joint area using propane torches such that no moisture is visible (typically temperatures of 40-60°C (100-140°F) are recommended on sleeve area). On pipe diameters greater than ***1220mm (48")***, use two torches on opposite sides. Apply the sleeve rapidly to minimize loss of pre-heat.

CANUSA-CPS is registered to **ISO 9001:2008.**

Part No. 99060-047

CANUSA-CPS

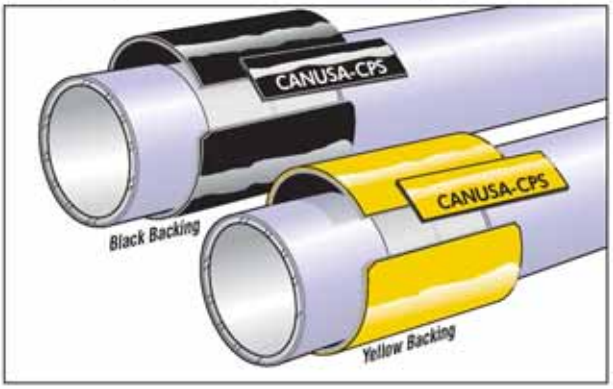
A SHAWCOR COMPANY

Product Data Sheet

CanusaWrap™

Two-piece protective bulk roll with separate closure

Canusa-CPS is a leading manufacturer of specialty pipeline coatings which, for over 30 years, have been used for sealing and corrosion protection of pipeline joints and other substrates. Canusa high performance products are manufactured to the highest quality standards and are available in a number of configurations to accommodate your specific project applications.



Product Description

CanusaWrap™ is a wraparound sleeve with a separate closure designed for corrosion protection of buried and exposed steel pipelines. CanusaWrap™ is supplied in bulk rolls consisting of a crosslinked polyolefin backing, coated with a protective heat activated adhesive. Once installed, the system effectively bonds and protects steel substrates and common main line pipe coatings including polyethylene and fusion bonded epoxy.

Features & Benefits

Long Term Corrosion Protection

CanusaWrap™ provides excellent resistance to cathodic disbondment resulting in effective long term corrosion protection. The high performance crosslinked backing, in combination with a broad range of adhesives, can be engineered for regular or high stress environments. Once installed, CanusaWrap™ provides the structural integrity of a seamless tube, and provides the substrate with durable protection against abrasion and chemical attack.

Flexibility on the Job Site

Since CanusaWrap™ is supplied in bulk rolls, just-in-time customized lengths can be quickly cut in the field to protect any pipe size. This flexibility results in reduced inventories and cost savings on the job site. CanusaWrap™ is also available in a high shrink ratio for high profile joint protection. Consult the High Shrink data sheet or your Canusa representative for additional information.

Easy Field Installation

CanusaWrap™ can be installed quickly and easily in most environments. Since no special taping, priming or operator equipment is required, product installation is quick and labour costs are kept to a minimum. CanusaWrap™ and the closure seals are available in yellow with a thermochromic indicator and a patented Windoweld feature which visually confirms optimum installation.

Applications

- Oil & Gas
- Polypropylene
- Water Pipelines
- Pre-Insulated Pipes
- Girth-Weld Joints

Configurations

- CanusaWrap™
- 2-Layer
- Standard Shrink

Pipe Sizes

55 - 1520 (2″ - 60″)

Temperature Range

up to 80°C (176°F)

CANUSA-CPS is registered to ISO 9001:2008.

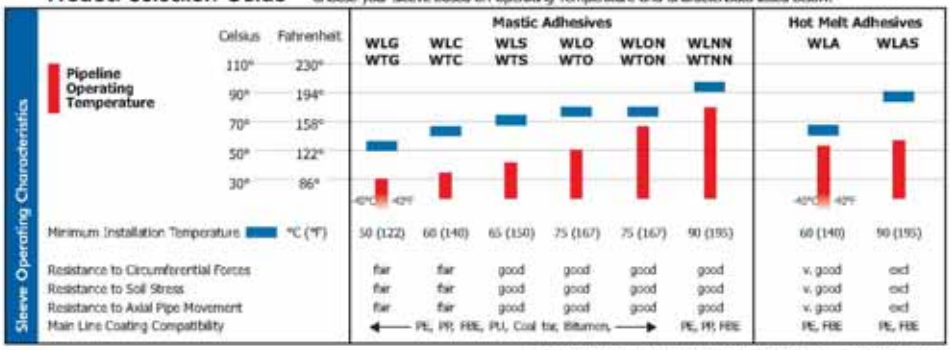
The product selection chart shown here is intended as a guide for standard products.
Consult your Canusa representative for specific projects or unique applications.
The following are typical values based on Black, Heavy Duty (L) Sleeves.

CanusaWrap™

Product Selection Guide

Choose your sleeve based on Operating Temperature and Characteristics listed below.

Sleeve Operating Characteristics



	WLG WTG	WLC WTC	WLS WTS	WLO WTO	WLON WTON	WLNN WTNN	WLA	WLAS
Minimum Installation Temperature °C (°F)	50 (122)	60 (140)	65 (150)	75 (167)	75 (167)	90 (195)	60 (140)	90 (195)
Resistance to Circumferential Forces	fair	fair	good	good	good	good	v. good	excl
Resistance to Soil Stress	fair	fair	good	good	good	good	v. good	excl
Resistance to Axial Pipe Movement	fair	fair	good	good	good	good	v. good	excl
Main Line Coating Compatibility	← PE, PP, FBE, PU, Coal tar, Bitumen, →					PE, PP, FBE	PE, FBE	PE, FBE

* For higher temperature requirements refer to Canusa GTS product line.

Typical Product Properties

		Test Standard	Unit								
Adhesive	Softening Point	ASTM E28	°C (°F)	100 (212)	90 (194)	77 (171)	102 (216)	102 (216)	124 (255)	72 (162)	90 (194)
	Lap Shear	DIN 30 672 M	N/cm² (psi)	8 (12)	30 (44)	40 (58)	40 (58)	40 (58)	52 (75)	60 (87)	117 (170)
Backing	Specific Gravity	ASTM D792		.93	.93	.93	.93	.95	.95	.93	.93
	Tensile Strength	ASTM D638	MPa (psi)	20 (2900)	20 (2900)	20 (2900)	24 (3480)	24 (3480)	24 (3480)	20 (2900)	24 (3480)
	Elongation	ASTM D638	%	600	600	600	700	700	700	600	700
	Hardness	ASTM D2240	Shore D	46	46	46	48	52	52	46	48
	Abrasion Resistance	ASTM D1044	mg	45	45	45	35	30	30	45	35
	Volume Resistivity	ASTM D257	ohm-cm	10^{17}	10^{17}	10^{17}	10^{17}	10^{16}	10^{16}	10^{17}	10^{17}
	Dielectric Voltage Brkdwn.	ASTM D149	kV/mm	27	20	20	27	20	20	20	27
Sleeve	Impact *	DIN 30 672	class C	--	pass	pass	pass	pass	pass	pass	pass
	Indentation *	DIN 30 672	class C	--	pass	pass	pass	pass	pass	pass	pass
	Peel	ASTM D1000	N/cm (pli)	15 (9)	55 (31)	79 (45)	80 (46)	80 (46)	115 (66)	50 (29)	120 (70)
	Peel	DIN 30 672	N/cm (pli)	8 (5)	50 (29)	70 (40)	65 (37)	65 (37)	90 (51)	35 (20)	86 (50)**
	Cathodic Disbondment	ASTM G8	mm rad	6	6	8	8	7	7	13	11
	Water Absorption	ASTM D570	%	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	Low Temp. Flexibility	ASTM D2671C	°C (°F)	-40 (-40)	-5 (23)	-20 (-4)	-14 (7)	-14 (7)	-15 (5)	-32 (-26)	-28 (-18)
	DIN Approval *	DIN 30 672	class	--	--	--	C30	C30	--	C50	C50
	Fully Recovered **T** Sleeve Thickness		mm (mils)	←		2.5 (99)	→		2.3 (90)	--	--
	Fully Recovered **L** Sleeve Thickness		mm (mils)	←		3.3 (131)	→		2.8 (111)	← 3.3 (131) →	

* Denotes **L** sleeve thickness. ** backing elongation during peeling due to superior bond strength

How To Order:

Dimensions & Ordering Info

WLO-B 450-30 BK

- **Colour**[3]
- **Bulk Roll Length**[2]
- **Sleeve / Closure Width**[2]
- **Bulk Roll Designation**[2]
- **Adhesive** (thickness as supplied)[2]
- **Backing** (thickness as supplied)[2]
- **Configuration**[2]

Bulk Roll Ordering Options		Closure Seal Options		
Heavy Duty Thickness (L)	Regular Thickness (T)	CLW-B 100-15 ZZ Weldable Closure	CLH-B XXX-15 BK Hot Melt Closure	CLS-B 100-15 ZZ Butyl Adhesive Closure
BK-Black, **YE**-Yellow		**ZZ-BK, WW, YE**	**BK**	**ZZ-BK, YE**
15, 30 m (50, 100 ft)		Bulk **15,30 m** (50,100 ft) Precut: **300,450,600,900mm, (12,18,24,36")**		
300, 450, 600, 900mm, (12, 18, 24, 36")		**100mm (4")**	**115, 150mm (4.6")**	**100mm (4")**
B - Bulk Roll Designation		**B** - Bulk Roll		
1.7 mm (65 mils)[1]	**1.25 mm (50 mils)**[1]	**W**- n/a	**H**-0.35mm (14mils)	**S**-0.75 mm (30mils)
L - 0.9 mm (36 mils)	**T - 0.6 mm (25 mils)**	0.65mm (27 mils)	0.6mm (32 mils)	0.8mm (32 mils)
W - Bulk Roll		**C** - Closure Seal		

[1] N/N has an adhesive thickness of 1.1mm (45 mils)

Bulk Roll Lengths: up to 600 mm width: **30 m** (100ft), above 600 mm width: **15 m** (50ft)

The above represents standard ordering options Consult your Canusa representative for any unique project requirements, including pre-cut sleeves or closures.

[3] WTON, WLON, WTNN, WLNN are available in black only.

CANUSA-CPS
A SHAWCOR COMPANY

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Fax: +44 (1293) 541777

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Singapore
408867
Tel: +65-6749-8918
Fax: +65-6749-8919

UCC

MATERIAL SAFETY DATA SHEET

UCC BUTYL MASTIC STRIP	
HEALTH HAZARD INFORMATION	
Cute Effects	
SWALLOWED:	Practically non-harmful
EYE:	Practically non-harmful
SKIN:	Practically non-harmful
INHALED:	Practically non-harmful at ambient temperatures
CHRONIC EFFECTS:	Not available
FIRST AID	
SWALLOWED:	seek medical advice
EYE:	not a likely hazard
SKIN:	Wash affected area with soap and water; if irritation continues seek medical advice
INHALED:	Not a likely hazard
FIRST AID FACILITIES:	Not available
ADVICE TO DOCTOR:	Treat sympathetically
TOXICITY DATA:	Not available

Section: 1 Date: 07 June 2012

UCC

MATERIAL SAFETY DATA SHEET

UCC BUTYL MASTIC STRIP

HEALTH HAZARD INFORMATION

PRECAUTIONS FOR USE

EXPOSURE STANDARDS:	No exposure limit is available for the material as such
ENGINEERING CONTROLS:	local ventilation sufficient for normal use.
PERSONAL PROTECTION:	Respiratory Protection, Not required if ventilation is adequate Gloves: May be repeated if prolonged over use Eye protection: Not necessary for normal use
FLAMMABILITY:	Non- Flammable
ENVIRONMENT:	Not available

SAFE HANDLING INFORMATION

STORAGE AND TRANSPORT
Store under cool, dry conditions away from strong oxidizing agents and acids

SPILLS AND DISPOSALS
Collect spilled material for either recycling or disposal. If floor contaminated, wash with detergent and water.

Section: 2 Date: 07 June 2012

UCC

MATERIAL SAFETY DATA SHEET

UCC BUTYL MASTIC STRIP

HEALTH HAZARD INFORMATION

FIRE/EXPLOSION HAZARD:

Hazardous decomposition products on burning: on burning: oxides of carbon, flammable hydrocarbons, smoke and fumes.
Fire-Fighting personnel to wear self contained breathing apparatus.
Extinguishing media: Foam, dry chemical, and carbon dioxide.

REACTIVITY DATA

Incompatible with strong oxidizing agents and acids.

CONTACTS

Universal Corrosion Coatings Pty Ltd
30A Trade Park Drive
Tullamarine VIC 3043

Tel 03 9310 3515
Fax 03 9310 3524

Section: 3 Date: 07 June 2012

Material Safety Data Sheet

Atherton Chemicals

Hazardous Substance, Dangerous Goods

1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: UCC Protek Butyl (Multi) Primer

Recommended use: A solvent based rubber solution for priming steel prior to tape application.

Supplier: Atherton Chemicals Pty Ltd

Street Address: 47 Industrial Park Drive
Lilydale VIC 3140
Australia

Telephone: +613 9739 4311
Facsimile: +613 0739 4355

Emergency telephone number: +61 3 9739 4311

2. HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of ASCC Australia.

Hazard Category:
Xn Harmful
Xi Irritant

Risk Phrase(s):

R38:	Irritating to skin.
R48/20:	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
Repr. Cat. 3. R63:	Possible risk of harm to the unborn child.
R65:	Harmful: May cause lung damage if swallowed.
R67:	Vapours may cause drowsiness and dizziness.

Safety Phrase(s):

S23:	Do not breathe vapour.
S24/25:	Avoid contact with skin and eyes.
S36/37/39:	Wear suitable protective clothing, gloves and eye/face protection.
S38:	In case of insufficient ventilation, wear suitable respiratory equipment.
S62:	If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail.

Class: 3 Flammable Liquid

Poisons Schedule (Aust): S5

APPENDIX C