

## Aqua-Shield™

### Corrosion protection sleeves for water pipelines

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

Aqua-Shield™ is a family of heat-shrinkable sleeve products that have been specifically designed for the corrosion protection of 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.

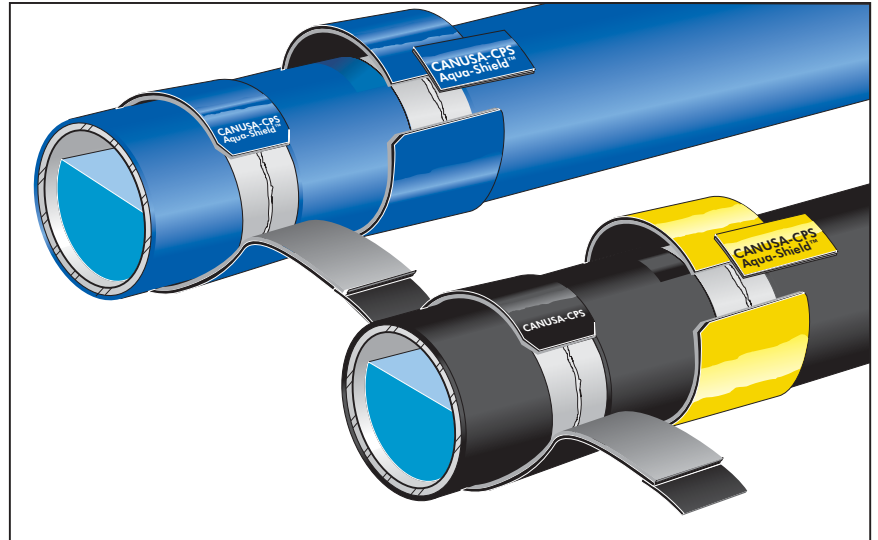
#### Features & Benefits

##### Long Term Protection.

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

##### Flexible & Reliable Installation.

The Aqua-Shield™ family of products are available in various configurations for flexibility of installation.



**Aqua-Shield™ AQS;** a patented one-piece configuration incorporates a factory applied closure seal resulting in quick and reliable field installation.

**Aqua-Shield™ AQW;** is supplied in a bulk roll with separate closure seals and provides just-in-time customized lengths. This flexibility results in reduced inventories and cost savings on the job site.

**Aqua-Shield™ HS;** HS and AQS-FPK are high shrink versions of these products are designed for large diameter pipes, flanges, casings, bell and spigot joints, and other high profile joints.

**Skirting Sleeves** are also available and consist of backing only and provide primary protection below Aqua-Shield™ HS Sleeves.

##### Assured Performance

All Aqua-Shield™ products meet or exceed the requirements of AWWA standard C216, and other industry standards.

#### Applications



Water Pipelines



Large Diameter



Girth-Weld Joints



Fittings

#### Configurations



Aqua-Shield™ AQS



Aqua-Shield™ AQW



Aqua-Shield™ HS



Standard Shrink

#### Pipe Sizes



All Sizes

#### Approvals





AWWA C216-00

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

# Aqua-Shield™

## Product Selection Guide

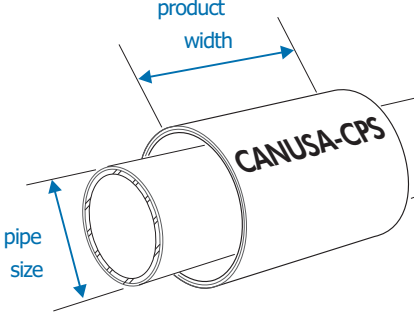
Product Selection by Pipe Size	Pipe Size Inches (mm)	Aqua-Shield™ AQS - One-Piece Sleeve 		Aqua-Shield™ AQW - Two Piece Sleeve with separate closure 	
		Standard = AQS	High Shrink = AQS-HS	Standard = AQW	High Shrink = AQW-HS
	up to 48" (1200)	✓	--	✓	--
greater than 48" (1200)	--	✓	--	✓	

**Notes:** Use One-Piece for mid size pipe diameters and optimum installations. Use Bulk Wrap for large & variable pipe diameters. Use Standard sleeves for welded joints on sizes up to 48" in diameter. Use High Shrink sleeves for High Profile joints and pipe diameters greater than 48". Consult your Canusa representative for unique project requirements, including the selection of the appropriate HS Sleeve and Skirting Sleeves.

## Typical Product Properties

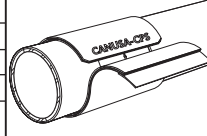
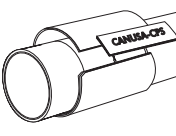
Adhesive	Test Standard	Unit	AWWA C216	Aqua-Shield™	
Softening Point	ASTM E28	°C (°F)	--	<b>102 (216)</b>	
Lap Shear Strength	DIN 30 672	N/cm <sup>2</sup> (psi)	--	<b>40 (58)</b>	
Backing	Tensile Strength	ASTM D638	MPa (psi)	<b>40 (3480)</b>	
	Elongation	ASTM D638	%	<b>700</b>	
	Hardness	ASTM D2240	Shore D	<b>48</b>	
	Abrasion Resistance	ASTM D1044	mg	<b>35</b>	
	Volume Resistivity	ASTM D257	Ohm-cm	10 <sup>14</sup>	<b>10<sup>17</sup></b>
	Dielectric Strength	ASTM D149	V/mil	400	<b>700</b>
	Water-vapour Transmission	ASTM E 96	g/h/m <sup>2</sup>	0.01	<b>&lt; 0.01</b>
Sleeve	Heat Shock	MIL-DTL-23053E	pass / fail	<b>pass</b>	
	Peel Strength	ASTM D903	N/cm (pli)	<b>6.5 (3.7)</b>	
	Water Absorption	ASTM D570	%	<b>0.05</b>	
	Low Temperature Flexibility	ASTM D2671	°C (°F)	<b>-14 (7)</b>	
	Impact	DIN 30 672	Class C	<b>pass</b>	
Indentation	DIN 30 672	Class C	--	<b>pass</b>	
Width Deviation		%	± 10	<b>± 5</b>	

Min. Sleeve Width = Bare Steel Dimension + 50mm (2") on each side of the pipe joint.




Please specify **product** (Sleeve or Wrap or Bulk Roll), **sleeve width**, **pipe size**, and **standard** or **high shrink**. Closures for AquaWrap to be ordered separately and are available pre-cut or in bulk.

## How to Order: Aqua-Shield™ AQS or Cut-to-Length Aqua-Shield™ AQW

Dimensions & Ordering Info	AQS 315-450 BK	Standard Ordering Options for AQS and AQW		Aqua-Shield™ AQS 	Cut-to-Length Aqua-Shield™ AQW 
		Standard (AQS)	High Shrink (HS)		
Pipe Size Range	<= 48" (1220mm)	> 48" (1220mm)			
"as supplied" Adhesive	<b>65 mils (1.65 mm)</b>	<b>45 mils (1.1mm)</b>			
"as supplied" Backing	<b>36 mils (0.92 mm)</b>	<b>36 mils (0.9mm)</b>			
"fully recovered" Sleeve	<b>125 mils (3.1mm)</b>	<b>105 mils (2.6mm)</b>			
Colour	BK - Black, YE - Yellow, BL - Blue				
Closure	Black & Yellow (pre-attached CLW closure), Blue (separate CLS closure)				
Sleeve Width	<b>300, 450, 600, 900mm (12, 18, 24, 36")</b>				
Pipe Size	up to 48" (1220mm)	greater than 48" (1220mm)			
Product Designation	AQS- Standard Aqua-Shield™ AQS	AQS-HS- High Shrink Aqua-Shield™ AQS			
	AQW- Cut-to-Length Aqua-Shield™ AQW	AQW-HS- Cut-to-Length Aqua-Shield™ AQW			
			• Cut-to-length with pre-attached CLW closure	• Available in black and yellow	• Cut-to-length with separate CLS closure
					• Available in blue

## How to Order: Bulk Rolls of Aqua-Shield™ AQW

Dimensions & Ordering Info	AQW-B 450-30 BL	Standard Ordering Options for AQW		Bulk Roll Aqua-Shield™ AQW 	Bulk Closures
		Standard (AQW)	High Shrink (HS)		
Pipe Size Range	<= 48" (1220mm)	> 48" (1220mm)			
"as supplied" Adhesive	<b>65 mils (1.65 mm)</b>	<b>45 mils (1.1mm)</b>			
"as supplied" Backing	<b>36 mils (0.92 mm)</b>	<b>36 mils (0.9mm)</b>			
"fully recovered" Sleeve	<b>125 mils (3.1mm)</b>	<b>105 mils (2.6mm)</b>			
Colour	BL - Blue				
Closure	CLW - Blue	BK - Black, CLS or CLW bulk or cut-to-length	YE - Yellow, CLW bulk or cut-to-length		
Bulk Roll Length	up to 650mm wide = <b>30m (100ft)</b> , wider than 650mm = <b>15m (50ft)</b>				
Bulk Roll Width	<b>300, 450, 600, 900mm (12, 18, 24, 36")</b>				
Bulk Roll Designation	<b>B - Bulk Roll</b>				
Product Designation	AQW- Standard Aqua-Shield™ AQW	AQW-HS- High Shrink Aqua-Shield™ AQW			
			• Bulk roll and separately supplied closures		
			• Available in black, yellow and blue		
					CLW-B 100-15 BK
					Colour
					Roll Length
					Closure Width
					Designation
					Configuration
					BK- Black, YE- Yellow, BL- Blue
					<b>15m (50ft)</b>
					<b>100mm (4")</b>
					<b>B - Bulk Roll</b>
					<b>CLW - Weldable CLS - Butyl</b>
					Cut-to-Length Closures
					Colour
					Closure Length
					Closure Width
					Configuration
					BK- Black, YE- Yellow, BL- Blue
					<b>300, 450, 600, 900mm (12, 18, 24, 36")</b>
					<b>100mm (4")</b>
					<b>CLW - Weldable CLS - Butyl</b>

\*Choose closure colour and type based on the recommendation in the How to Order boxes



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