



# TECHNICAL DATA SHEET

**Gasket: EPDM Rubber Conforming to ASTM C 923**

PROPERTY	REQUIREMENT	TYPICAL VALUE	TEST METHOD
<b>Specific Gravity</b> (g/cc)	-	1.19	ASTM D 297
<b>Hardness</b> (Shore A)	50-75	51	ASTM D 2240
<b>Tensile Strength</b> (psi)	1000	1590	ASTM D 412
<b>Elongation at Break</b> (%)	200	660	ASTM D 412
<b>Tear Strength</b> (ppi)	-	192	ASTM D 624
<b>Water Absorption</b> (% Δ in Wt. Max)	20	+ 8.23	ASTM D 471
<b>Chemical Resistance</b> (48h at 23°C)			
1 N Sulfuric Acid Absorption	no wt. loss	+3	ASTM D 543
1 N Hydrochloric Acid Absorption	no wt. loss	+3.3	
<b>Compression Set</b> (% Δ Max)		19.2	ASTM D 395
<b>Heat Aging</b> (96 h at 70°C)			ASTM D 573
Δ in Hardness (Shore A)	+10	+3	
Tensile Strength (% Δ Max)	- 25	- 21	
Elongation at Break (% Δ Max)	- 35	- 27	
<b>Ozone Resistance</b> 50pphm, 100 h at 40°C, 20% elongation	no cracks	no cracks	ASTM D 1149
<b>Color</b> Green Matching SDR-35 Plastic Pipe (QS-4, QS-6 and QS-8)			
Grey Matching PVC-GRY-60 (QS-4S40 and QS-6S40)			

## Clamp:

- Conforms to the Requirements of SAE J1508 Type HD
- All Components Constructed of 316 Stainless Steel Conforming to ASTM A 240/A 240M
- The Housing is of Two Piece Construction, Mechanically Locked to the Band
- Installation Torque of 60"lbs., Ultimate Torque at Failure 150"lbs.

## Performance Tests:

- QS-4, QS-6, QS-8, QS-4S40, QS-6S40:
  - Tested to the Performance Requirements of Section 7 of ASTM C 923
    - 7.2.1 "Straight Alignment" – Connecting Pipe of Appropriate Diameter to a 24" Diameter Manhole Base, 13psi Hydrostatic Pressure, 10 Minutes, No Leaks
    - 7.2.2 "Axial Deflection" – Connecting Pipe of Appropriate Diameter to a 24" Diameter Manhole Base, Axial Deflection 7°, 10psi Hydrostatic Pressure, 10 Minutes, No Leaks
    - 7.2.3 "Shear Load" – Connecting Pipe of Appropriate Diameter to a 24" Diameter Manhole Base, 150lb Load/Nominal Inch of Pipe ID, 10psi Hydrostatic Pressure, 10 Minutes, No Leaks
- QS-4, QS-4S40: Hydrostatically Tested to 5psi for 30 Minutes with no Leakage Installed in 8" and Larger Concrete, Clay, and Plastic Pipe
- QS-6, QS-6S40: Hydrostatically Tested to 5psi for 30 Minutes with no Leakage Installed in 10" and Larger Concrete, Clay, and Plastic Pipe
- QS-8: Hydrostatically Tested to 5psi for 30 Minutes with no Leakage Installed in 15" and Larger Concrete, Clay, and Plastic Pipe

## Installation:

- QS-4 Connects 4" SDR-35 Pipe to 8" and Larger Concrete, Clay and Plastic
- QS-6 Connects 6" SDR-35 Pipe to 10" and Larger Concrete, Clay and Plastic
- QS-8 Connects 8" SDR-35 Pipe to 15" and Larger Concrete, Clay and Plastic
- QS-4S40 Connects 4" SCH 40 PVC to 8" and Larger Concrete, Clay and Plastic
- QS-6S40 Connects 6" SCH 40 PVC to 10" and Larger Concrete, Clay and Plastic

## Minimum protrusion into a Main Pipe Diameter, refer to chart below:

### 4" QwikSeal (QS-4, QS-4S40)

Main Pipe Diameter	Approx. Protrusion Into Main Pipe
8"	0.88"
10"	0.67"
12"	0.55"
15"	0.43"
18"	0.35"
24"	0.26"
30"	0.21"
36"	0.17"
42"	0.15"
48"	0.13"
54"	0.12"
60"	0.10"

### 6" QwikSeal (QS-6, QS-6S40)

Main Pipe Diameter	Approx. Protrusion Into Main Pipe
10"	1.43"
12"	1.30"
15"	0.87"
18"	0.71"
24"	0.52"
30"	0.41"
36"	0.34"
42"	0.29"
48"	0.26"
54"	0.23"
60"	0.20"

### 8" QwikSeal (QS-8)

Main Pipe Diameter	Approx. Protrusion Into Main Pipe
15"	0.87"
18"	0.71"
24"	0.52"
30"	0.41"
36"	0.34"
42"	0.29"
48"	0.26"
54"	0.23"
60"	0.20"

## NOTE - Corrugated Applications (Soil Tight)

- QS-4 and QS-4S40: 8" to 24" pipe diameter
- QS-6 and QS-6S40: 10" to 24" pipe diameter
- QS-8: 15" to 24" pipe diameter