



KOR-N-SEAL® I & II

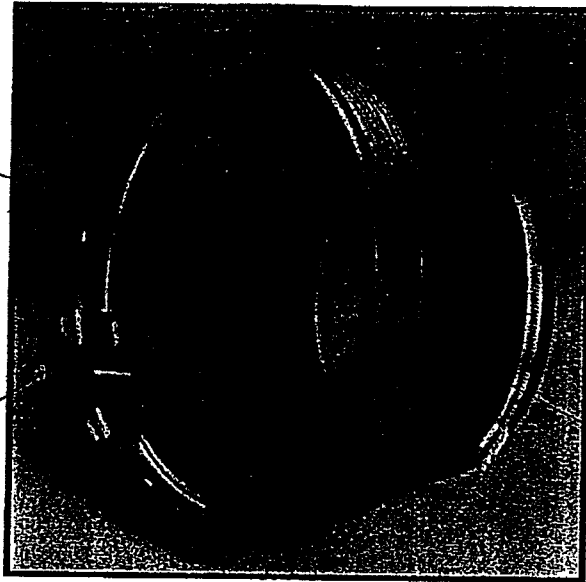
FLEXIBLE PIPE-TO-MANHOLE CONNECTORS
SPECIFICATION SHEET

Stainless Steel
Korband.

Stainless Steel
Pipe Clamp

Reinforced
Nylon Wedge

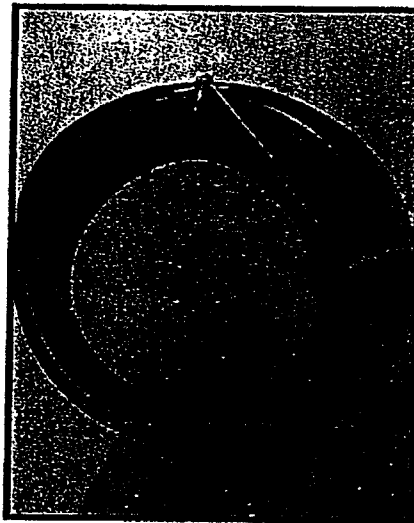
EPDM
Rubber Connector



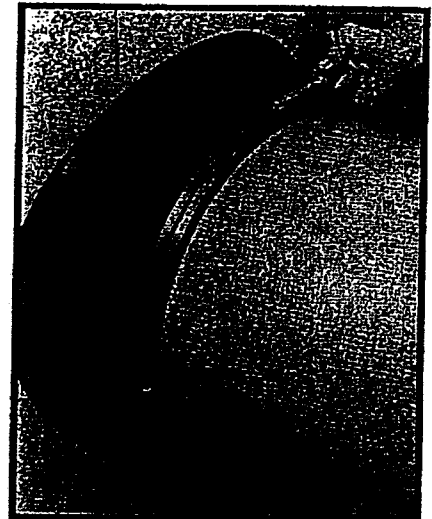
KOR-N-SEAL I - WEDGE KORBAND CONNECTOR ASSEMBLY



Install Kor-N-Seal I - Wedge Korband
With Socket Wrench & Torque Limiter



Install Kor-N-Seal II - Wedge Korband
With Standard Torque Wrench



Install Pipe Clamp(s)
With T-Handle Torque Wrench

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Kor-N-Seal® Product Line

Technical Specifications

PERFORMANCE

Performed on all standard sizes of Kor-N-Seal Connectors.

Test	ASTM Method	Test Requirements	Kor-N-Seal Products
Head Pressure	C923 - 7.1	0° - 13 psi (30 ft) for 10 min.	+13 psi for 10 min.
		7° - 10 psi (23 ft) for 10 min.	+10 psi for 10 min.
Deflection Test	C923 - 7.2.2	7° in any direction	Over 7° in any direction
Load Test	C923 - 7.2.3	150 lbs/in. pipe dia.	Over 150 lbs/in. pipe dia.

RESILIENT RUBBER MATERIAL

Conforms to ASTM C923

Test	ASTM Method	Test Requirements	Kor-N-Seal Products
Chemical Resistance	D543, at 22°C for 48 h		
1 N Sulfuric Acid		No weight loss	No weight loss
1 N Hydrochloric Acid		No weight loss	No weight loss
Tensile Strength	D412	1200 psi	1580 psi
Elongation at Break		350% min.	500%
Hardness	D2240 (shore A durometer)	± 5 from the manufacturer's specified hardness	48 ± 5
Accelerated Oven-Aging	D573 70 ± 1°C for 7 days	Decrease of 15%, max. of original tensile strength, decrease of 20% max. of elongation	10.1% tensile decrease 14% elongation decrease
Compression Set	D395, method B, at 70°C for 22h	Decrease of 25%, max. of original deflection	13% decrease
Water Absorption	D471, immerse 0.75 by 2-in. specimen in distilled water at 70°C for 48 h	Increase of 10%, max. of original by weight	.8% increase
Ozone Resistance	D1171	Rating 0	Rating 0
Low-temperature Brittle Point	D746	No fracture at -40°C	No fracture at -40°C
Tear Resistance	D624, method B	200 lbf/in.	No tear at 210 lbf/in.

300 SERIES STAINLESS STEEL

Conforms to ASTM C923, ASTM A666, and A240

Test	Kor-N-Seal Products
Tensile Strength	75,000 psi
Yield Strength (min.)	30,000 psi
Elongation in 2" (min. %)	40%
Hardness Rockwell "B"	95





GENERAL CHEMICAL RESISTANCE OF EPDM VERSUS SBR RUBBER¹

ASTM D1418 Designation	EPDM	SBR
Chemical Name	Ethylene Propylene Diene Monomer	Styrene Butadiene
CHEMICAL GROUP:	Ethylene, Propylene, Copolymer, Isopolymer	Poly, Butadiene, Styrene, Copolymer
GENERALLY RESISTANT TO:	Animal and Vegetable Oils, Ozone, Strong and Oxidizing Chemicals	Most Moderate Chemicals - Wet or Dry, Organic Acids, Alcohols, Ketones, Aldehydes
GENERALLY ATTACKED BY:	Mineral Oils and Solvents, Aromatic Hydrocarbons Greases, Most Hydrocarbons	Ozone, Strong Acids, Fats, Oils

PROPERTY COMPARISONS OF EPDM VERSUS SBR RUBBER²

ASTM D1418 Designation Chemical Name	EPDM Ethylene Propylene Diene Monomer	SBR Styrene Butadiene
PHYSICAL		
Density (gm/cm ³)	0.86	0.94
Hardness range (Shore A)	30-90	40-100
Permeability to gases	C	C
Electrical resistivity	A	A
Odor	B	B
Taste	B	C-B
Nonstaining	B	D-B
Bondability	B	A
MECHANICAL		
Tensile strength (max psi)	3,000	3,500
Abrasion resistance	B	A
Flex resistance	B	B
Tear resistance	C	C
Impact resistance	B	A
Deformation capacity	B	B
Elasticity	B-A	B
Resilience	B	B
Creep, stress relaxation	C-B	B
THERMAL		
Recommended max temp (°C)	125	100
Low-temp stiffening	B	C
Heat-aging resistance	A	B
Flame resistance	D	D
RESISTANCE TO		
Weather	A	C-B
Oxygen	A	B
Ozone	A	C-D
Radiation	B	B
Water	A	B-A
Steam	A	C
Alkali dil/conc	A/A	C-B/C-B
Acid dil/conc	A/A	C-B/C-B
Oil, gasoline, kerosene	NR	NR
Benzene, Toluol	NR	NR
Animal, vegetable oils	B	D-B
Oxygenated solvents	B-A	B
Halogenated solvents	NR	NR
Alcohol	B-A	B
Synthetic lubes (diester)	NR	NR
Hydraulic fluids		
Silicates	C	B
Phosphates	C	B

A = Excellent B = Good C = Fair D = Poor NR = Not Recommended

Source: ¹CHEMICAL ENGINEERS' HANDBOOK, "Table 8 - General Chemical Resistance of Various Elastomers", Fifth Edition, McGraw-Hill Book Company, New York et al.

²MACHINE DESIGN Magazine, "Section 4 Elastomers, Rubbers", April 15, 1982, p.204

