

TECHNICAL SPECIFICATIONS

CERTAINTED CORPORATION
PIPE DIVISIONSPECIFICATIONS CLASSIFICATION:
Standard Purchasing SpecificationPREPARED BY: TCO REF. NO.: SPEC. NO.: PAGE NO:
8 531 1APPROVED BY: SUPERSEDES: DATE OF ISSUE:
December 10, 1974 February 12, 1979-----
DESCRIPTION: Fluid-Tite Rubber Rings For Use With A/C Sewer Pipe,
Couplings and Fittings
-----1. Use

These rubber rings are intended for use as seals in Fluid-Tite Sewer Couplings of Asbestos-Cement Pipe. This seal is to prevent leaking from the inside out, and infiltration from the outside in. Rubber rings when placed in service shall meet the requirements of this specification.

2. Conformance

The rubber rings shall be made of an approved compound and meet the requirements of P&PG Purchasing Specification No. 506 and ASTM D-1869 latest issue.

3. Design

All rings are circular in form and shall be manufactured to the dimensions specified in the drawings of Figures 1 through 4 of this specification.

4. Lot Size

For sampling and inspection purposes, a lot shall be defined as the quantity of rings of each size and type, received at one time.

5. Requirements5.1 Manufacturer's Inspection

The vendors shall institute such sampling plans that all defective rings are removed before shipment. All rings are to be shipped on a first-in first-out basis; i.e. oldest rings are shipped first.

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5. Requirements - (Cont'd.)

5.2 Appearance

5.2.1 Surface

The surface shall be smooth and clean. Any matter either foreign or migratory from the compounds that give a dirty appearance shall be considered a defect. The surface shall be free from pitting, cracks, air and flow marks, blisters, and all other imperfections which would detrimentally affect the ring in service. A slightly raised radius around the holes is acceptable.

5.2.2 Body

The body of the ring shall be free from porosity and air pockets.

5.2.3 Permissible Defects

While the ring should contain no imperfections and every effort should be made toward this end, the following defects are considered acceptable.

5.2.3.1 Mold Imperfections

Flow marks in and between holes of less than 1/16 inch in depth. No more than six such flow marks are permitted within any one ring.

5.2.3.2 Cuts, Tears, Gouges

5.2.3.2.1 Cuts or tears in holes of less than 1/16 inch in depth and 1/8 inch in length. No more than six such cuts or tears are permitted within any one ring. Any cut or tear extending toward the outside edge is a defect.

5.2.3.2.2 Gouges less than 1/16 inch in depth and 1/8 inch in length are permitted on the ring edge. No more than six such gouges are permitted within any one ring.

Note: Cuts or tears in the ring edge 1/16 inch or greater is a defect.

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5.2.3.3 Flash

The maximum allowable flash shall be .063 inch thickness, 1/16 inch long. The flash may be removed by hot tear, or other suitable means.

5.2.4 Color Stripes

Each rubber ring shall be identified by color coding in accordance with Table A. The ring shall be color coded by a continuous color stripe, at least 1/8 inch wide on the back of the ring. The color stripe shall be compatible with the ring, non-toxic, and shall withstand abrasion and not peel when the ring is elongated.

5.2.5 Identification Marks

- 5.2.5.1 The letters are to be .010 inch x 3/32 inches high for 4 inch through 16 inch and .010 inch x 3/16 inches high for 18 inch through 24 inches, length to suit, located on the designated marking area. See Figures 1 through 4.
- 5.2.5.2 The date of manufacture shall be shown by the number of the quarter and the last two digits of the year, such as 2-79, denoting the second quarter of 1979.
- 5.2.5.3 One quarter turn from the date code shall be the manufacturer's insignia, cavity and mold number.
- 5.2.5.4 One-half turn from the date code shall be the words FLUID-TITE Sewer, followed by the size: i.e. FLUID-TITE Sewer 6".
- 5.2.5.5 Three-quarters turn from the date code shall be the words Combined C'pl'ng and Gasket U.S. Patent 2,871,031.

Note: Some cavities have a code number which is perfectly acceptable.

5.3 Splice

The splice (if any) shall be properly joined and sufficiently strong to withstand a 50% circumferential elongation without separation.

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5.4 Dimensions

The dimensions shall be as shown in Figures 1 through 4.

6. Test Methods

6.1 Appearance - Visual in accordance with paragraph 5.2.

6.2 Splice - In accordance with paragraph 5.3.

6.3 Dimensions - In accordance with P&PG Test Method TM-23.

7. Acceptance and Rejection

P&PG reserves the right to reject any lot or lots found not conforming to this specification. Such rejection or acceptance shall not be limited to the time delivery, but shall be accomplished within sixty (60) days from receipt date. In the event of a rejection, the vendor shall be immediately notified and the reason for this rejection explained. The vendor shall be given the opportunity to inspect representative samples of the rejected materials. The vendor must express his desire to inspect rejected and the physical inspection must be performed within thirty (30) days.

8. Packaging and Marking

8.1 Rings shall be shipped in the size carton as shown in the chart on page 6. The cartons shall be plain and 275 pound test regular slotted carton. The flute is to run parallel to the height. All cartons are to be sealed using reinforced tape.

The marking on the carton may be either vendor's label or stencil. All cartons must show the size, Sewer, FLUID-TITE and number of rings in the carton and P&PG Purchase Order No., i.e. 6" Sewer FLUID-TITE 375 (No. of rings) P&PG Order No.

8.2 In addition, until further notice the cartons for the new design 14", 15", 16" and 21" sizes shall have a red color swatch at least 1" square on the same side with the other markings. (A 3/4" diameter round red color swatch is an acceptable alternate.)

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8.3 Rings of different size, or elastomer, shall not be mixed in the same carton. Rings shall be bundled in sub lots of 25 to the bundle in size 4" through 16" inclusive; and 10 to the bundle in sizes 18", 30", 21" and 24".

8.4 The number of rings per carton and the size of the carton shall be in accordance with the following chart:

Size	Type	Carton Size Inside Dimensions Inches			Carton Contents	
		Length	Width	Height	No. Bundles	No. Rings
4"	Sewer	16-1/2	16-1/2	16-1/2	12	300
5"	Sewer	16-1/2	16-1/2	16-1/2	11	275
6"	Sewer	16-1/2	16-1/2	16-1/2	10	250
6"	CAS	16-1/2	16-1/2	16-1/2	10	250
8"	Sewer	16-1/2	16-1/2	16-1/2	7	175
10"	Sewer	16-1/2	16-1/2	16-1/2	6	150
12"	Sewer	16-1/2	16-1/2	16-1/2	5	125
14"	Sewer	21	21	10	4	100
15"	Sewer	21	21	10	4	100
16"	Sewer	21	21	10	4	100
18"	Sewer	31	31	15	6	60
20"	Sewer	31	31	15	6	60
21"	Sewer	31	31	15	5	50
24"	Sewer	31	31	15	5	50

9. Approval

All new or reworked molds must be approved by the Materials Laboratory Supervisor of P&PG before such molds are allowed to be placed in production.

All rings, which are to be finished in the normal production method, will be inspected for marking, visual defects, and dimensions in accordance with paragraph 6.

Dimensions - From experience, it is known that in order to insure that all rings produced in a given cavity will be within specification limits, the mold approval tolerances shall be 75% of the published plus tolerance and 100% of the published minus tolerance for the hole depth, and 100% of the published tolerances for all other dimensions.

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FIGURE I
4", 5" 6"

SECTION A-A

Sewer Pipe Rings - 4"-5"-6"

Nominal Pipe Size & Class	No. of Holes ± 2	O.D. Inches	O.D. Tolerance ±
4" Sewer	71	5.26	0.020
5" Sewer	86	6.30	0.020
6" Sewer 1500-3300	100	7.30	0.025

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DESCRIPTION: Fluid-Tite Rubber Rings For Use With A/C Sewer Pipe,
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FIGURE II
6" Thru 16"

SECTION A-A

Sewer Pipe Rings - 6" thru 16"

Nominal Pipe Size	Type	No. of Holes + 2	O.D. Inches	O.D. Tol. +	E + .010	G +.010	Lbs. Nom. Wt.
6"	CAS	74	7.340	.025	.187	.468	.16
8"	Sewer	99	9.460	.040	.187	.468	.21
10"	Sewer	113	11.660	.050	.187	.468	.26
12"	Sewer	146	13.800	.065	.187	.468	.31
14"	Sewer	169	15.840	.075	.200	.493	.39
Old Design 16"	Sewer	190	17.920	.090	.200	.493	.45
Old Design							

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FIGURE II
6" Thru 16"

SECTION A-A

Sewer Pipe Rings - 6" thru 16"

Nominal Pipe Size	Type	No. of Holes ± 2	O.D. Inches	O.D. Tol. ±	E ± .010	G ± .010	Lbs. Nom. Wt.
6"	CAS	74	7.340	.025	.187	.468	.16
8"	Sewer	99	9.460	.040	.187	.468	.21
10"	Sewer	113	11.660	.050	.187	.468	.26
12"	Sewer	146	13.800	.065	.187	.468	.31
14"	Sewer	169	15.840	.075	.200	.493	.39
Old Design 16"	Sewer	190	17.920	.090	.200	.493	.45
Old Design							

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FIGURE III
14" Thru 16"

Identification
Marking Area

Identification
Marking Area

Color
Code Stripe

"X"
Holes Equally
Spaced

SECTION A-A

Sewer Pipe Rings - 14", 15", 16"

	Nominal Pipe Size	Type	Number of Holes	O.D. Inches	O.D. Tol. ±	Nominal Weight Lbs.
New Design	14	Sewer	108	16.12	.075	.54
Initial FT Design	15	Sewer	116	17.16	.080	.58
New Design	16	Sewer	124	18.20	.085	.62

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DESCRIPTION: Fluid-Tite Rubber Rings For Use With A/C Sewer Pipe,
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FIGURE IV 18" Thru 24"

Identification
Marking Area

Identification
Marking Area

Color
Code Stripe

"X"
Holes Equally
Spaced

SECTION A-A Sewer Pipe Rings - 18", 20", 24"

	Nominal		No. of Holes ± 2	O.D. Inches	O.D. Tol. ±	Nominal Weight Lbs.
	Size	Type				
Initial New Design	18"	Sewer	141	20.560	.105	1.16
	20"	Sewer	155	22.640	.105	1.28
	21"	Sewer	160	23.730	.105	1.34
	24"	Sewer	184	26.740	.105	1.51

*Note: Rubber ring weights are not shown as a requirement. The
weights are included for information purposes only.

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TABLE A

<u>Size</u>	<u>Type</u>	<u>NR-SBR</u>	<u>NBR</u>
4"	Sewer	Green	White
5"	Sewer	Green	White
6"	Sewer	Green	White
6"	CAS	None	None
8"	Sewer	Green	White
10"	Sewer	Green	White
12"	Sewer	Green	White
14"	Sewer	Green	White
15"	Sewer	Green	White
16"	Sewer	Green	White
18"	Sewer	Green	White
20"	Sewer	Green	White
21"	Sewer	Green	White
24"	Sewer	Green	White

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DESCRIPTION: Fluid-Tite Rubber Rings For Use With A/C Sewer Pipe,
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1. Inspection

Sampling and inspection shall be carried out in accordance with
P&PG Test Method TM-23.

2. Rejection

The following procedure shall be followed on all rejected
shipments:

2.1 The Headquarters Purchasing Department shall be notified.
They will issue instructions on when and how the shipment is
to be returned.

2.2 Quality Control Headquarters (A/C) shall be notified. If
requested, defective samples shall be forwarded to the
Quality Control Manager.

3. Approved Vendors

Kirkhill Rubber Company
Brea, California

Approved to manufacture
4", 6", 8", 18"

Reeves Rubber Company
San Clemente, California

Approved to manufacture
4" through 14", 16",
18", 20", 24" (14" and
16" old design).

Jacobs Rubber Company
Dayville, Conn. 06241

Approved to manufacture
8" only.

Note: Old K&M commodity codes
may appear on some rings,
(ex. S2-801-RFT).

15" and 21" molds have not been
made as of this printing.

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