

KOMO[®] Product certificate **K4193/22**



Issued 2019-07-01 Replaces K4193/21

Valid until Indefinite Dated 2018-12-01

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Vulcanized rubber products for cold and hot non-drinking water applications **Trelleborg Pipe Seals Lelystad BV**

STATEMENT BY KIWA

This product certificate is issued on the basis of BRL 2013 "Vulcanized rubber products for cold and hot non-drinking water applications" dated 12 October 2016 including the alteration sheet dated 10 October 2018, conform the Kiwa-Regulations for Certification.

The quality system and product characteristics in association with vulcanized rubber products for cold and hot-drinking water applications are assessed periodically.

On this basis Kiwa declares that a justified confidence exists, that the vulcanized rubber products for cold and hot-drinking water applications delivered by the certificate holder at delivery fulfil:

- the technical specification laid down in this product certificate,
- the product requirements as laid down in this product certificate and in the BRL. provided that vulcanized rubber products for cold and hot-drinking water applications have been marked with the KOMO®-mark in a manner as indicated in this product certificate;

Ronald Karel Kiwa

The certificate is listed in the overview on the website of Stichting KOMO: www.komo.nl. Advice: consult www.kiwa.nl in order to ensure that this certificate is still valid.

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Evaluated is: quality system product Periodic inspection page 2 of 5

Vulcanized rubber products for cold and hot non-drinking water applications

TECHNICAL SPECIFICATION

Vulcanized rubber products for cold and hot non-drinking water applications

Product characteristics

The products as specified in the table below fulfil the requirements of BRL-2013 for the mentioned class(es).

al type minal mensions oss section al type minal mensions oss section	Field of application ² : Production method: Model 050 300-1500 mm 13-26 mm Model 104 300-3000 mm 16-38 mm Model 116 300-3000 mm 16-30 mm Model 118 500-4000 mm 20 and 21.5 mm	I – WC Injection (796) Extrusion (7964)	Remarks: Seal type Nominal Dimensions Cross section	Model 101 100-3000 mm 8.5-28 mm Model 114 300-3000 mm 15-30 mm Model 117 300-3000 mm 7-34 mm Model 134 125 and 160 mm
al type minal mensions oss section	Production method: Model 050 300-1500 mm 13-26 mm Model 104 300-3000 mm 16-38 mm Model 116 300-3000 mm 16-30 mm Model 118 500-4000 mm 20 and 21.5	Injection (796)	Nominal Dimensions Cross section Seal type Nominal Dimensions Cross section Seal type Nominal Dimensions Cross section Seal type Nominal Dimensions Cross section	100-3000 mm 8.5-28 mm Model 114 300-3000 mm 15-30 mm Model 117 300-3000 mm 7-34 mm
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eminal mensions oss section al type ominal mensions oss section	300-1500 mm 13-26 mm Model 104 300-3000 mm 16-38 mm Model 116 300-3000 mm 16-30 mm Model 118 500-4000 mm 20 and 21.5		Nominal Dimensions Cross section Seal type Nominal Dimensions Cross section Seal type Nominal Dimensions Cross section Seal type Nominal Dimensions Cross section	100-3000 mm 8.5-28 mm Model 114 300-3000 mm 15-30 mm Model 117 300-3000 mm 7-34 mm
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al type minal mensions oss section	13-26 mm Model 104 300-3000 mm 16-38 mm Model 116 300-3000 mm 16-30 mm Model 118 500-4000 mm 20 and 21.5		Cross section Seal type Nominal Dimensions Cross section Seal type Nominal Dimensions Cross section Seal type Nominal	8.5-28 mm Model 114 300-3000 mm 15-30 mm Model 117 300-3000 mm 7-34 mm Model 134
al type minal mensions oss section	Model 104 300-3000 mm 16-38 mm Model 116 300-3000 mm 16-30 mm Model 118 500-4000 mm 20 and 21.5		Seal type Nominal Dimensions Cross section Seal type Nominal Dimensions Cross section Seal type Nominal	Model 114 300-3000 mm 15-30 mm Model 117 300-3000 mm 7-34 mm Model 134
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al type minal mensions oss section al type minal mensions oss section	Model 116 300-3000 mm 16-30 mm Model 118 500-4000 mm 20 and 21.5		Seal type Nominal Dimensions Cross section Seal type Nominal	Model 117 300-3000 mm 7-34 mm Model 134
minal mensions oss section al type minal mensions oss section	300-3000 mm 16-30 mm Model 118 500-4000 mm 20 and 21.5	•	Nominal Dimensions Cross section Seal type Nominal	300-3000 mm 7-34 mm Model 134
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mensions oss section al type minal mensions oss section	16-30 mm Model 118 500-4000 mm 20 and 21.5	44	Dimensions Cross section Seal type Nominal	7-34 mm Model 134
al type minal mensions oss section	Model 118 500-4000 mm 20 and 21.5	44	Seal type Nominal	Model 134
ominal mensions oss section	500-4000 mm 20 and 21.5	44_	Nominal	
ominal mensions oss section	20 and 21.5	444	Nominal	125 and 160 mm
oss section	20 and 21.5	444	Dimensions	125 and 160 mm
	111111		Cross section	8 mm
al type			Cross section	OHIIII
ai ivbe	Model 140		Seal type	Model 145
minal			Nominal	
mensions	300-3000 mm		Dimensions	50-400 mm
oss section	13-32 mm		Cross section	10-26 mm
al type	Model 146	6-37	Seal type	Model 153
minal	incus: 110	1	Nominal	model 100
mensions	300-3000 mm		Dimensions	300-3000 mm
oss section	13.5-36 mm		Cross section	12-18 mm
al type	Model 159		Seal type	Model 159s
minal	Micael 100		Nominal	Micael 1005
mensions	300-3000 mm		Dimensions	1400-3200 mm
oss section	28 mm		Cross section	16-28 mm
al type	Model 177		Seal type	Model 520
minal			Nominal	
			Dimensions	500 and 630 mm
oss section	13-22 mm	2	Cross section	37.7-49.5 mm
al type	Model 928		Seal type	Model 910
minal	125 and		Nominal	
		W P		50-2000 mm
oss section	9 mm		Cross section	20-32 mm
al type	Model 999		Seal type	Model 124
minal	000 4000		Nominal	
				400-3000mm
	13.4-25 mm		Cross section	14.5-21.5 mm
	mensions oss section al type minal mensions oss section al type minal mensions oss section al type minal mensions oss section	minal	Minimal 300-3000 mm 28 mm 300-3000 mm 28 mm 300-3000 mm 300-900 mm	minal nensions 300-3000 mm 28 mm 28 mm 29 minal Dimensions Cross section 28 mm 29 minal Dimensions Cross section 28 mm 200-900 minal Dimensions 200-900 mm



Vulcanized rubber products for cold and hot non-drinking water applications

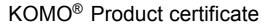
Rubber Compound:	NBR 570I/570U				
Hardness:	40 IRHD	Field of application ² :	I-WG	Remarks:	
Ozone Class ¹ :	II	Production method:	Injection (570I) Extrusion (570U)		
Ozone class .	Seal type	Model 104	Extrasion (5700)	Seal type	Model 114
	Nominal	Wodel 104	\	Nominal	Wodel 114
	Dimensions	300-3000 mm		Dimensions	300-3000 mm
	Cross section	16-38 mm		Cross section	15-30 mm
4	Seal type Nominal	Model 116		Seal type Nominal	Model 117
	Dimensions	300-3000 mm		Dimensions	300-3000 mm
	Cross section	16-30 mm		Cross section	7-34 mm
	Seal type	Model 910			
1 12	Nominal	50 – 200 mm mold			
W	Dimensions	50 – 400 mm extr			
	Cross section	20 mm			
Rubber Compound:	SBR 293 & SBR	2939E			
•		Field of		Remarks:	
Hardness:	40 IRHD	application ² : Production	I – WC Injection (293)	-	
Ozone Class ¹ :	II	method:	Extrusion (2939E)		1
	Seal type	Model 101 G-ring	_	Seal type	Model 103 Glipp
	Nominal	O mig		Nominal	- C.I.P.P
	Dimensions	100-3000 mm		Dimensions	150-2000 mm
	Cross section	8.5-28 mm		Cross section	10-26 mm
•	Seal type	Model 104	277	Seal type	Model 114
	Nominal Dimensions	300-3000 mm		Nominal Dimensions	300-3000 mm
	Cross section	16-38 mm		Cross section	15-30 mm
	Croco codion	10 00 111111		Croco cocion	10 00 11111
W-864.	Seal type	Model 116		Seal type	Model 117
	Nominal	200 2000 mm		Nominal	200 2000 mm
	Dimensions	300-3000 mm 16-30 mm		Dimensions Cross section	300-3000 mm 7-34 mm
	Cross section	10-30 111111		Cross section	7-34 111111
	Seal type	Model 124		Seal type	Model 520
	Nominal			Nominal	
	Dimensions	400-3000 mm		Dimensions	500 and 630 mm
	Cross section	14.5-21.5 mm		Cross section	37.7-49.5 mm
225	Seal type	Model 910	_ 83	Seal type	Model 928
	Nominal	50 – 200 mm	444	Nominal	
	Dimensions	mold 50 – 400 mm extr		Dimensions	125 and 160 mm
AL DE	Cross section	20 mm		Cross section	9 mm
	0.11			0 11	
	Seal type Nominal	Model 134		Seal type Nominal	Model 050
444	Dimensions	160 mm		Dimensions	300-1500 mm
52	Cross section	8 mm		Cross section	13-26 mm
	Seal type	Model 118		Seal type	Model 140
	Nominal Dimensions	500-4000 mm		Nominal Dimensions	300-3000 mm
	5	20 and 21.5		2	000 0000 111111
	Cross section	mm		Cross section	13-32 mm



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	Seal type	Model 145		Seal type	Model 146
	Nominal			Nominal	
	Dimensions	50-400 mm		Dimensions	300-3000 mm
	Cross section	10-26 mm		Cross section	13.5-36 mm
	Seal type	Model 159		Seal type	Model 159s
•	Nominal			Nominal	
	Dimensions	300-3000 mm		Dimensions	1400-3200 mm
	Cross section	28 mm		Cross section	16-28 mm
	Seal type	Model 910			
	Nominal	50 – 200 mm mold			
1	Dimensions	50 – 400 mm extr			
Y Y	Cross section	20 mm			
Dubbar Campaund	SBR 2979				
Rubber Compound:	5BR 29/9	Field of		Remarks:	
Hardness:	50 IRHD	application ² :	I-WC		
Ozone Class ¹ :	l 11	Production method:	Extrusion		
00000000	Seal type	Model 117		Seal type	Model 140
	Nominal			Nominal	
	Dimensions	300-3000 mm		Dimensions	300-3000 mm
	Cross section	7-34 mm		Cross section	13-32 mm
Dulbhan Caranavada	EPDM 797/797E			<u> </u>	
Rubber Compound:	EPDW /9///9/E	Field of		Remarks:	
Hardness:	50 IRHD	application2:	I-WC		
Ozone Class ¹ :	1	Production method:	Injection (797), Extrusion (797E)		
	Seal type	Model 117		Seal type	Model 177
	Nominal	000 0000		Nominal	4000 4500
	Dimensions Cross section	300-3000 mm 7-34 mm		Dimensions Cross section	1000-1500 mm 24-26 mm
	Gross section	7 04 11111		Cross scotion	24 20 11111
. X . X .	Seal type	Model 550	11/2/23	Seal type	Model 605
44	Nominal Dimensions	315-425 mm		Nominal Dimensions	500, 630, 710 and 800 mm
	Cross section	17-30 mm	7	Cross section	22-43.8 mm
			(36.2)		
±	Seal type	Model 521		Seal type	Model 520
	Nominal	200 400	•	Nominal	245 400
	Dimensions	200-400 mm 14.2-29.2 mm		Dimensions Cross section	315-400 mm
	Cross section	14.2-29.2 11111		Cross section	21.7-29.6 mm
	Seal type	Model 534		Seal type	
	Nominal			Nominal	
	Dimensions Cross section	600 mm 42,5 mm		Dimensions Cross section	
	01033 3CCII011	72,0 IIIII		O1033 SECTION	
Pubbar Compound:	EDDM 700;				
Rubber Compound:	EPDM 798i	Field of		Remarks:	
Hardness:	60 IRHD	application ² :	I-WC	_	
Ozone Class ¹ :	1	Production method:	Injection		
	Seal type	Model 576			
5 >	Nominal				
	Dimensions	100-400 mm			
110	Cross section	13.8-28 mm	1	1	
	Ologg Scotion	10.0 20	1		





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Vulcanized rubber products for cold and hot non-drinking water applications

- 1 Ozone resistance class according to BRL-2013:
 - For products with a high risk of attack by ozone, for instance in case of separately supplied products without sufficient packaging or in case of connections with preinstalled rubbers under strain;
 - II For products for which a normal resistance to ozone is required;
 - III For rubbers which are never (partly) exposed to the open air when they are in tension. Transport shall always take place in sealed packages.
- 2 Field of application class according to BRL 2013 class:
 - Cold water supply at temperatures continuously up to 45 °C and intermittently up to 95 °C;
 - II Hot water supply at temperatures intermittently up to 110 °C, or water supply up to 110 °C in serviceable piping systems;
 - III Hot water circulation systems based on the classification class 2 in ISO 10508;
 - IV District heating, secondary systems with hot water circulation between 75 °C and 95 °C.

Field of application class according to EN 681-1:

WC As in BRL-2013 class I;

WD As in BRL-2013 class II;

WF As in BRL-2013 class II, for IIR-copolymer;

VG As in BRL-2013 class I, oil resistance.

Details of the products are included in the drawing list, which forms a part of the IQC schedule.

Kiwa authenticates this list. A copy of this list can be obtained from the producer.

Marking

The following marks and indications must be provided on each product and product packaging in a clear, legible and indelible way:

- the name of manufacturer or the deposited trade mark;
- KOMO (or KOMO® word mark) with certificate number;
- · the nominal dimension or dimensions;
- · the nominal hardness;
- · the year of manufacturing and preferably the quarter;
- type of rubber applied by means of the letter codes of the nomenclature according to ISO 1629;
- the application class (I, II, III or IV);
- on products from blends, the letter B ("blend") shall be placed behind the first letter code;
- the ozone resistance class ("Ozone I, II or III"). For rubber rings made from two compounds the compound with the lowest class is valid.
- # If the dimensions of the products are such that the indications applied to them may impair the product, the products may be marked per package in consultation with the manufacturer, the buyer and Kiwa. Products produced by cutting or die cutting out of sheets may be marked per package.

BRL number and certificate number; optional

RECOMMENDATION FOR THE CUSTOMER

Check at the time of delivery whether:

- the supplier has delivered in accordance with the agreement:
- the mark and the marking method are correct;
- the products show no visible defects as a result of transport etc.

if you should reject a delivery on the basis of the above, please contact:

- Trelleborg Pipe Seals Lelystad BV

and, if necessary:

- Kiwa Nederland B.V.

For the proper storage, transport and processing consult the instructions of the certificate holder.

Statements made in this certificate are not to be used instead of CE-marking and/or the required Declaration of Performance (DoP).

