CERTIFICATE

Product certificate
K55481/07

Issued *2020-12-15*

Replaces *K55481/06*

Vulcanised rubber products for cold and hot drinking water applications

STATEMENT BY KIWA
With this product certificate, issued in accordance with the Kiwa Regulations for Certification, Kiwa declares that legitimate confidence exists that the products supplied by

Tecnogomma International SPA

as specified in this product certificate and marked with the Kiwa®-mark in the manner as indicated in this product certificate may, on delivery, be relied upon to comply with Kiwa evaluation guideline BRL-K17504 “Vulcanised rubber products for cold and hot drinking water applications” dated 10-10-2018.

Ron Scheepers
Kiwa

Publication of this certificate is allowed.
Advice: consult www.kiwa.nl in order to ensure that this certificate is still valid.

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Certification process consists of initial and regular assessment of:
- **quality system**
- **product**

Vulcanised rubber products for cold and hot drinking water applications

PRODUCT SPECIFICATION

The products as specified in the table below fulfil the requirements of BRL-K17504. BRL-K17504 covers the requirements of EN 681-1, "Elastomeric seals - Materials requirements for pipe joint seals used in water and drainage applications - Part 1: Vulcanized rubber".

TECHNICAL SPECIFICATION OF THE PRODUCT

Rubber Compound:	**NBR TEC N41-70**				
Hardness:	70 IRHD	Field of application[2]:	I – WA	Remarks:	
Ozone Class[1]:	II	Production method:	Injection mold		
Seal type	**Trapezium ring 1998, 1999, 2000, 2001, 2002, 2003, 2004**				
Nominal Dimensions	15 - 80 mm				
Cross section	3,3 – 10,5 mm				
Seal type	**Profile Ring 2008, 2009, 2010**		Seal type	**O-ring**	
Nominal Dimensions	75 – 130		Nominal Dimensions	5 - 400	
Cross section	1,8 - 25		Cross section		
Seal type	**Parts 3257, 3258, 3259, 3260, 3261, 3262**		Seal type	**Parts 3263, 3264, 3265**	
Nominal Dimensions	18,4 – 61		Nominal Dimensions	77 - 112	
Cross section	4 – 7,5		Cross section	2,2 – 6,4	
Rubber Compound:	**EPDM TIMO 70**				
Hardness:	70 IRHD	Field of application[2]:	II – WB	Remarks:	
Ozone Class[1]:	I	Production method:	Injection mold		
Seal type	**Polygonal Ring, coated #**		Seal type	**Profile Ring, 1268, 1268-B, 1580, 1711, 1776**	
Nominal Dimensions	12 - 54 mm		Nominal Dimensions	16,1 – 127,5 mm	
Cross section	2,4 – 4,1 mm		Cross section	2,5 – 12 mm	
Seal type	**Profile Ring 1821A, 1821B,1821C,1821D, 1822A,1822B,1822C, 1822D,1823B,1823D, 1824A,1824B,1825A, 1825B,1825C**		Seal type	**Profile ring 2273, 2274,2275,2275B, 2276,2277,2277B, 2278,2279,3056, 3097,3098**	
Nominal Dimensions	18 – 79,5 mm		Nominal Dimensions	20 – 62 mm	
Cross section	2 – 10,2 mm		Cross section	2,4 – 5,4 m,m	
Seal type	**O-ring**		Seal type	**O-ring coated #**	
Nominal Dimensions	5 – 400 mm		Nominal Dimensions	5 – 108 mm	
Cross section	0,5 - 10 mm		Cross section	0,5 - 10 mm	

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Rubber Compound:	**EPDM TIMO 5-70**				
Hardness:	70 IRHD	Field of application[2]:	II – WB	Remarks:	
Ozone Class[1]:	I	Production method:	Injection mold		
Seal type	**O-ring**		Seal type	**Profile ring 3312, 3125, 3085, 3448**	
Nominal Dimensions	5 – 400 mm		Nominal Dimensions	14,2 – 42,4	
Cross section	0,5 - 10 mm		Cross section	2,3 - 4,6	
Seal type	**Profile ring 2183, 2182, 2181, 2180, 1952, 1921, 2178, 2179**				
Nominal Dimensions	12,8 - 55,5				
Cross section	2,1 – 4,2				
Rubber Compound:	**EPDM TIMO 7-70**				
Hardness:	70 IRHD	Field of application[2]:	I&II – WA & WB	Remarks:	
Ozone Class[1]:	I	Production method:	Injection mold		
Seal type	**O-ring**		Seal type	Press-fitting	
Nominal Dimensions	5 – 400 mm		Nominal Dimensions	15,1 - 108	
Cross section	0,5 - 10 mm		Cross section	2,5 – 10 mm	

#: These rings may be coated with the surface lubricant TIMOFILM

1 Ozone resistance class according to BRL-K17504:
- I 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-K17504:
- I Water supply at temperatures up to 50°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;

Field of application according to EN 681-1:
- WA As in BRL-K17504 class I;
- WB As in BRL-K17504 class II;
- WE As in BRL-2013 class II, for IIR-copolymer.

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.

Fitness for contact with drinking water

This product is approved on the basis of the requirements for hygienic aspects set in the "Regeling materialen en chemicaliën drink- en warm tapwatervoorziening" (“Materials and chemicals in the supply of drinking water and warm tap water Regulation” dated 01-07-2017; published in the Government Gazette).
These hygienic aspects are based on two main criteria. The product shall permanently comply with:

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- The product recipe approved during the assessment procedure. This recipe is not to be changed without prior approval by Kiwa according to the Kiwa approval procedure for the hygienic aspects;
- Specific product requirements for the hygienic aspects.

The recipe and specific product requirements are laid down in the for confidentiality reasons undisclosed 'appendix hygienic aspects' to this certificate.

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;
- Kiwa (or Kiwa® word mark) and additionally the Kiwa watermark ;
- 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 or III);
- 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.

APPLICATION AND USE

The rubber rings are meant to be used in

- **NBR TEC N41-70 for** cold water applications (≤ 25 ºC)
- **EPDM TIMO 70 and EPDM TIMO 5-70 for** warm water applications (≤ 60 ºC)
- **EPDM TIMO 7-70 for** cold water applications (≤ 25 ºC)/warm water applications (≤ 60 ºC)

RECOMMENDATIONS FOR CUSTOMERS

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 product on the basis of the above, please contact:

- Tecnogomma International SPA

and, if necessary,

- Kiwa Nederland B.V.

Consult the supplier's processing guidelines for the proper storage and transport methods.