

KOMO[®]

Product certificate

certificate number

Issued *yyyy-mm-dd* Replaces *certificate number*

Valid until *Indefinite* Dated *yyyy-mm-dd*

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STATEMENT BY **CI**

This product certificate is based on BRL 2020-1 dated 08-09-2022 issued according to the **CI**-Regulation for Certification.

The quality system and the product characteristics of this product are checked periodically. Based on this, **CI declares that** there is legitimate confidence that:

Upon delivery, the product supplied by the certificate holder meets the requirements:

- Of the technical specifications laid down in this product certificate,
- The product requirements laid down both in this product certificate and in the BRL.

Provided the packaging is accompanied by the KOMO[®] quality mark in the manner set out in this product certificate.

Director **CI**

CI

473200612

This product certificate is also included on the KOMO foundation websites: www.komo.nl and www.komo-online.nl.
Users of this product certificate is advised to check whether it is still valid. For this purpose consult the website of **CI**:
www.xx.xx

CI
Street + number
PO BOX
Postal code + city
Country
Tel.
Fax
E-mail
Website

Certificate holder
Name certificate holder
Street + number
Postal code + city
Country
Tel.
Fax
Email
Website

Assessed is:
• Quality system
• Product
Periodic control

1 TECHNICAL SPECIFICATION

The products as specified in the table below fulfil the requirements of BRL 2020-1 “TPE pipe joint seals for non-pressure waste water and drainage Part-1: MATERIAL”. The harmonized European standard EN 681-2 is applicable to the products made from this TPE material. These products are covered by BRL 2020-2.

The following products are covered by this product certificate:

Specification

Type TPE material	Nominal hardness in IRHD
xxxxxxxxxx	xx

2 QUALITY MARK AND INDICATIONS PLACED ON THE PACKAGING

The packaging is marked by means of:

- The KOMO[®] indication or the KOMO[®] quality mark followed by the certificate number. The official KOMO quality mark is shown and executed as follows:



- KOMO logo or KOMO word mark followed by the certificate number without specifying the version,
- Name of certificate holder,
- Production date/ (the year of manufacturing and preferable the quarter),
- Production date/ (the year of manufacturing and preferable the quarter),
- The type of TPE in a letter code according to the nomenclature used in ISO 18064 (e.g. TPV, TPS,).

3 MATERIAL CHARACTERISTICS

3.1 ESSENTIAL CHARACTERISTICS

Characteristic / property	Dimension	Method	Requirement	Reference BRL 2020-1
Hardness	IRHD	ISO 48-2	± 5	4.2.4.2
Tensile strength (perpendicular to flow direction)	MPa	ISO 37	Min. 4	4.2.4.3
Tensile strength (in flow direction)	MPa	ISO 37	Min. 2,8	4.2.4.3
Elongation at break (perpendicular to flow direction)	%	ISO 37	Min. 300	4.2.4.3
Elongation at break (in flow direction)	%	ISO 37	- (report the value measured)	4.2.4.3
Ageing 336 hours in air at 80 °C change in hardness change in tensile strength change in elongation at break	IRHD % %	ISO 188	Max. 7 Max. 20 Max. 30	4.2.4.4



Compression set 72 h, -10°C 72 h, 23°C 24 h, 70 °C	% % %	ISO 815-2 ISO 815-1 ISO 815-1	Max. 65 Max. 25 Max. 40	4.2.4.5
Stress relaxation 100 days at 23 °C (*)	%	ISO 3384-1	Max. 32	4.2.4.6
Stress fall after 168 h at 23 °C with 2 times 1 h at 70 °C	%	BRL 2020-1 4.2.4.7	Max. 30	4.2.4.7
Ozone resistance 48 h, 40 °C, 20 % elongation, 50 pphm ozone concentration	-	ISO 1431-1	No cracks	4.2.4.8
Swelling in water Volume change after 168 h in water at 70 °C	%	ISO 1817	-1 / +8	4.2.4.9
Swelling in oil Volume change after 72 h in oil IRM 1 at 70 °C	%	ISO 1817	-10 / +50	4.2.4.10

It has been established that the product characteristics mentioned above meets the requirements mentioned above.
The statements above may not be used to replace the CE marking and/or the corresponding obligatory Declaration of Performance.

3.2 OTHER PRODUCT CHARACTERISTICS

The TPE material shall be resistant to any chemicals that waste water can contain under usual circumstances and in the usual concentrations.

Are there additional requirements on chemical resistance? Yes/No

If yes specify below.

Characteristic	Method	Requirement	Reference BRL 2020-1
Resistance against chemical	ISO 1817		4.2.3

4 TIPS FOR THE USER

Check on delivery of the products listed under the “technical specification” whether:

- The product(s) and material(s) ordered are delivered in accordance with the agreement you made.
- The brand and the method of marking is correct
- No defects or damage is visible (for example, resulting from the transportation).

The statements in this product certificate may not be used to replace the CE marking and/or the corresponding obligatory Declaration of Performance.

If on the basis of the foregoing you decide to proceed to rejection, please contact

-
- And if necessary,
• **CI**

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

