

# Rubber seals for water pipelines Worldwide product compliance

# Increase the market potential of your rubber seals

Water supply, drainage and sewerage pipelines are important application areas for rubber seals. Seals are used in many types of pipelines, including iron, steel, clay, fiber cement, concrete, reinforced concrete, plastics and glass-reinforced plastic.

Water piping systems are installed in many parts of in the world. The potential is enormous as in many developing countries the infrastructure for water supply as well as sewerage will be extended in the near future. Rubber seal manufacturers will take the advantage if they are able to supply worldwide.

#### Product quality of rubber seals

Effective and long term performance of rubber seals is essential to prevent leakage of pipelines and subsequent spillage of water and high costs for repair and damage. Actions to get a grip on product quality have resulted in the development of product standards with requirements to rubber seals regarding physical-mechanical properties.

Increasingly, authorities, pipe system suppliers and other parties in the chain of custody are demanding proof of quality of rubber seals by third party testing, inspecting and certification.

# Important product standards for rubber seals

## Europe - European Union

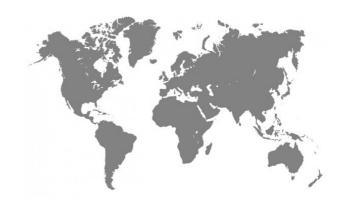
The harmonized standard EN 681-1 for rubber sealing products for piping systems for water supply, sewerage and drainage is applicable within the European Construction Products Regulation 3052011/EU. Manufacturers have to prove that their products meet the requirements of EN 681-1.

#### International - Asia / Africa

The international standards ISO 4633 (cold and intermittently hot water) and ISO 9631 (hot water) are increasingly being regarded as the reference for the minimum requirements for rubber seals for water pipelines. Product certification according to these standards will gain importance as main countries like China and Japan are incorporating the ISO standards in building regulations.

### **Australia**

For the Australian (and New Zealand) market, product compliance according to AS 1646 (for waterworks purposes) and AS 681.1 (for water pipelines) is demanded. The latter standard is very much alike EN 681-1.



#### **USA**

USA legislation, building and plumbing codes refer to ASTM standards. For rubber seals ASTM F477 (plastic pipes) and ASTM C1619 (concrete pipes) are the most important product standards. USA authorities and building inspectors request test reports for product compliance according to these standards.

#### Worldwide product compliance

In order to become access to global markets, it is important for rubber seal manufacturers to obtain product certificates that are accepted in the countries of use.

### Kiwa services

Kiwa is the dedicated impartial third party for product compliance according to all important international standards. Kiwa test reports and product certificates help you to access markets in all parts of the world and grow your business.

Kiwa's specialists are well-known in the world of rubber seals and are active in the standard committees of EN and ISO. Kiwa's initiatives to set and improve certification schemes and product standards are appreciated in the market.

Kiwa mechanical test laboratory is fully equipped for testing of rubber sealing products according to the applicable international product standards. The laboratory is ISO/IEC 17025 accredited.

# **Product certification**

Kiwa product certificates according to Kiwa evaluation guidelines and EN, ISO, AS and ASTM standards provide compliance to product requirements on a global scale.

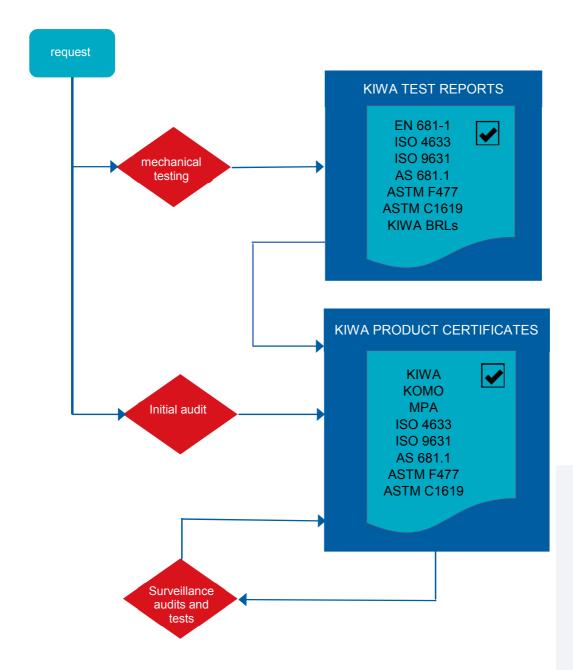
A schematic overview of our services is displayed on the backside.

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Other test reports and certificates on request

# Applications in contact with drinking water and food

Kiwa product certificates can be extended with certificates and approvals for drinking water and food contact.

Contact us for more information.

Kiwa, as an independent, impartial and innovative partner, wants to help rubber companies go forward. Kiwa has the knowledge to help rubber companies achieve reliability and market acceptance.

Kiwa's core business lies in activities as testing, inspection and certification (TIC) with related training, technology and data services. We aim to contribute to organizations being able to offer quality and adding value to society thanks to their reliability, safety, efficiency and sustainability.

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