

## Viton®-Gaskets seamless PTFE enveloped

Elastic, aseptic, physiological neutral



*Viton®-gaskets with seamless envelope of virginal PTFE*

Tübingen, 28. Sept. 2004. Pipe connections used in the chemical, pharmaceutical, cosmetics, food and beverage industry have to meet high technical requirements. Especially the gaskets, positioned between the flanges, are often subject to heavy stress situations caused by aggressive media and changing pressures and temperatures during various technical processes. That can lead to impairments of the technical processes and to leakages of the system.

To withstand better the operational demands and to get a dependable sealing function LINNEMANN offers especially enveloped gaskets with many positive properties. The gaskets have an elastomer core, which consists of Viton® (FKM). This elastic Viton® core is enveloped by a transparent seamless jacket of virginal PTFE. The speciality of the PTFE enveloped gasket is marked thereby, that the jacket is manufactured of virginal PTFE and that it is completely closed. The seamless jacket consists not of FEP or PFA as is otherwise common practice but of high-quality PTFE.

The PTFE jacket is 0,25 mm thick, whereby a lasting homogeneous hermetically sealed cover is maintained, which is so flexible that it nestles closely to the Viton® core. Thereby the whole PTFE enveloped gasket has a relatively high elasticity, which is almost similar to the elasticity of the Viton® core.

The gaskets can be used at working temperatures from  $-40\text{ }^{\circ}\text{C}$  up to  $+240\text{ }^{\circ}\text{C}$  and have a notably low friction coefficient of about 0,03 as well as a high resistance against almost all chemicals. They are physiologically neutral and can be sterilised and therefore especially qualified for processes with high aseptic requirements in the pharmaceutical industry.

The PTFE jacket is according to FDA, so that the gaskets are preferentially used with aseptic screwed pipe connections according to DIN 11864-1, aseptic flanged pipe connections according to DIN 11864-2, and aseptic clamp pipe connections according to DIN 11864-3.

The PTFE enveloped gaskets as O-ring design are available in many different cord thicknesses from  $\text{Ø } 2,62\text{ mm}$  up to  $\text{Ø } 10\text{ mm}$ . The inner diameters of the O-rings range from  $\text{Ø } 10\text{ mm}$  up to  $\text{Ø } 300\text{ mm}$  and can be chosen according to requirements. The PTFE enveloped O-rings cannot only be used as static but also due to their elasticity as dynamic shaft seals when bedded in accordingly designed grooves.

Furthermore are the seamless enveloped gaskets available as so called dairy tube gaskets both with and without collar. These PTFE enveloped dairy tube gaskets are used with screwed pipe connections according to DIN 11851 in dimensions DN 10 up to DN 150. Other gasket types as Kamlok, Elaflex etc. are also realisable.

The firm LINNEMANN GmbH was founded in 1981 and is engaged since then in development and manufacturing of high-quality pipe connections and fittings of stainless steel, which are based on numerous inventions. The development of new products and the improvement of existing articles belong to the core competence of the business, so that the newest state-of-the-art is always given.

Already in 1996 a quality management system was introduced that is active in all departments and is TÜV certified according to DIN ISO 9001 : 2000. The range of products comprise more than 12.000 articles, which are shown in a catalogue and in the world wide web under [www.linnemann-online.com](http://www.linnemann-online.com) with all essential data and prices.

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