

KWO® Universal ePTFE-Joint Sealant



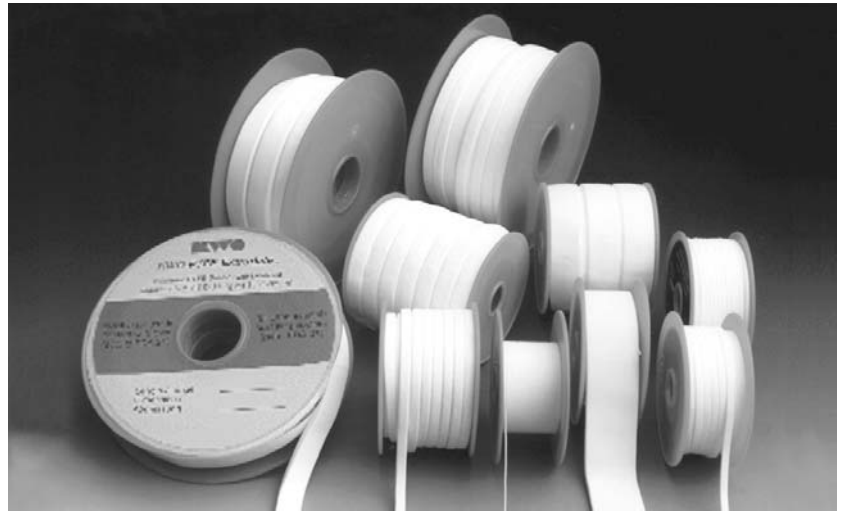
KWO® Universal ePTFE Joint Sealant consists of virginal, expanded **Teflon®** PTFE.

The expansion process produces a micro-porous fibrous structure which gives the product its unique mechanical properties.

For easy installation **KWO® Universal-F** is equipped with an adhesive strip.

KWO® Universal-R with round cross section protects pharmaceutical processes which need pure adhesive free PTFE.

KWO® Universal is conforming to the FDA requirements. Materials and production are certified by German TÜV, by DVGW for gas and BAM for use with oxygen.



Product Data

Material

pure virginal **Teflon®** PTFE with expanded, microporous fibrous texture.



Chemical Resistance

pH 0 to 14
resistant to all media, with the exception of solvated and molten alkaline metals, as well as elementary fluorine at $T > 150\text{ °C}$ and $p > 40\text{ bar}$ ($T > 423\text{ K}$ and $p > 4\text{ MPa}$)

Resistance to Ageing

in the permissible area of application there is no ageing of **KWO® Universal** joint sealant. Depending on stocking conditions the adhesive force of the backside glue strip can decrease.

Temperature Range

-240 °C to $+270\text{ °C}$, intermittent to $+315\text{ °C}$
(-400 °F to $+518\text{ °F}$, intermittent to $+600\text{ °F}$)

Physiologically harmless

consists of pure PTFE conforming to FDA 21 requirements for use in contact with food
FDA21CFR 177.1550 (a) (1) and (b)

Pressure Range

the pressure range depends on installation- and working parameters - please refer to our installation- and maintenance manual

Specific Maximum Force at Rupture

exceeding 1200 N*cm/g

Teflon® is a registered trademark of DuPont. Only DuPont makes **Teflon®**.

Field of Application

Flanges

all types of flanges in frictional connection

Components

e.g. pipe, component- and machine housings, pumps, apparatus, compensators, ventilation- and air-conditioning systems

Materials

e.g. FRP, glass, ceramics, graphite, aluminum, steel and rubber-coated materials

Tests and Certifications

BAM Tgb. - No. 4.1.332/94

for the use of flanges from steel -, copper - and copper alloys with flat sealing areas and grooved flanges, up to oxygen pressures of 100 bar (10 MPa) and temperatures up to 90 °C (363 K)

DVGW Reg. - No. DG-5127AQ1282

Suitable for gas supply applications up to 16 bar (1,6 MPa) and temperatures from -10 °C to $+70\text{ °C}$ (263 K to 343 K)

TÜV test - No. AW6/3231-98

Product characteristics and production, voluntarily examined and monitored by TÜV SÜD



Characteristic Values

$K_0 \times K_D = 20 \times b_D$
 $K_1 = 1,6 \times b_D$
 $m = 1,5; Y = 2500 \text{ psi}$
 Values according to DIN 28090 and prEN 13555
 are available on request.

Form of Delivery

Standard lengths

KWO® Universal joint sealant can be supplied on
 rolls of 5 m, 10 m, 25 m and 50 m.
 Other lengths and sizes on request

Standard sizes

KWO® Universal-F Flat Seals (rectangular cross-section)

Article Number	Width w x Height h [mm]
200315	3 x 1,5
200520	5 x 2
200725	7 x 2,5
201030	10 x 3
201240	12 x 4
201450	14 x 5
201760	17 x 6
202070	20 x 7
202850	28 x 5
204050	40 x 5

KWO® Universal-B Extra Wide Sealant Tape
 from 0,1 mm to 3 mm thick, up to 200 mm wide

KWO® Universal-R Round Seals (round cross-section)

Article Number	Diameter [mm]
30010	1
30030	3
30050	5
30070	7
30100	10
30120	12
30140	14
30160	16

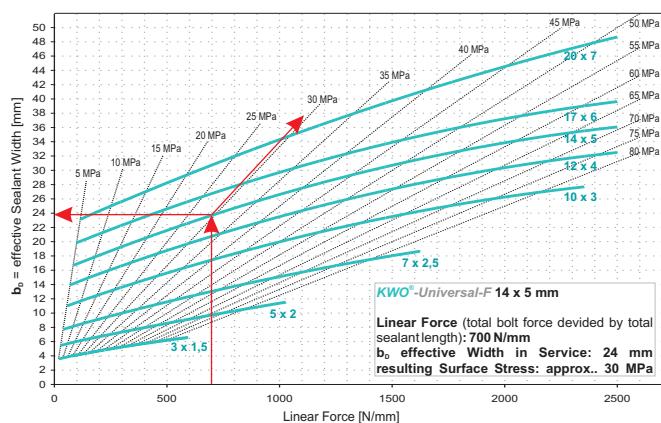
Quality Management

Our Quality Management System according to DIN
 EN ISO 9001 is the basis of our high quality -
 continuous improvement is thereby one of our most
 important goals.

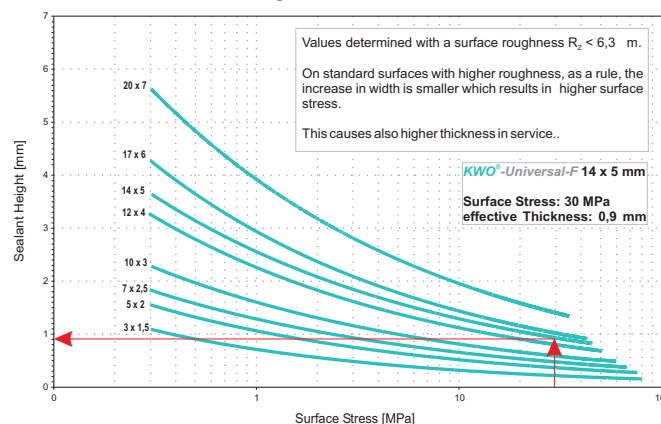
Your **KWO-Partner**:

Teflon® is a registered trademark of E.I. du Pont de Nemours and
 Company used under license by KWO Dichtungstechnik-GmbH

effective Sealant Width and resulting Surface Stress
at 20 °C depending on Linear Forces



Change in Thickness at 20 °C



Seal Selection and Installation

Dimension Recommendation

The correct choice of the seals dimension depends
 on factors like width and composition of the sealing
 surface, on construction of flanges and bolts as
 well as on the existing operating conditions.
Rule of thumb: Seal width should be approx. 1/4 to
 1/3 of the sealing surface width.

Installation

Please always consult our assembly instructions.
 If you do not have one yet, it is possible to receive
 a free copy on request.
 Please contact our technical service, if you have
 further questions.

General Information

All technical information and advice are based on
 our experience and are to the best of our
 knowledge, but do not state any liability by our
 company. Specifications and values must always
 be checked by the customers, for they are the only
 ones that can judge the efficiency of a product
 taking into account all of the on site operating
 conditions.