

KWO® Universal F premium ePTFE Joint Sealant



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

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

For easy installation **KWO® Universal F premium** is equipped with an adhesive strip. **KWO® Universal R** with round cross section is for pharmaceutical processes that 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

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

Adhesive: double side tape or hotmelt adhesive, conforming to the FDA-requirements



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 high temperature and pressure

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 glue strip can change.

Temperature Range of Material

-240 °C to +270 °C, intermittent to +315 °C (-400 °F to +518 °F, intermittent to +600 °F)

Physiologically harmless

consists of pure PTFE conforming to FDA requirements for use in contact with food. FDA 21 CFR 177.1550 (PTFE) and FDA 21 CFR 175.105 (Adhesive)

Pressure Range

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

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

Prüfungen und Zulassungen

BAM Test-No. II 1102/2008

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 and temperatures up to 60°C

DVGW Reg.-No. DG-5127AQ1282

Suitable for gas supply applications up to 16 bar (1,6 MPa) and temperatures from -10°C to +70°C

TÜV certificate No. 08 08 9020 001

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



KWO® Universal F premium ePTFE Joint Sealant

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 EN 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 premium Flat Seals (rectangular cross-section)

Article Number	Width w x Height h [mm]
280315	3 x 1,5
280520	5 x 2
280725	7 x 2,5
281030	10 x 3
281240	12 x 4
281450	14 x 5
281760	17 x 6
282070	20 x 7
282850	28 x 5
284050	40 x 5

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

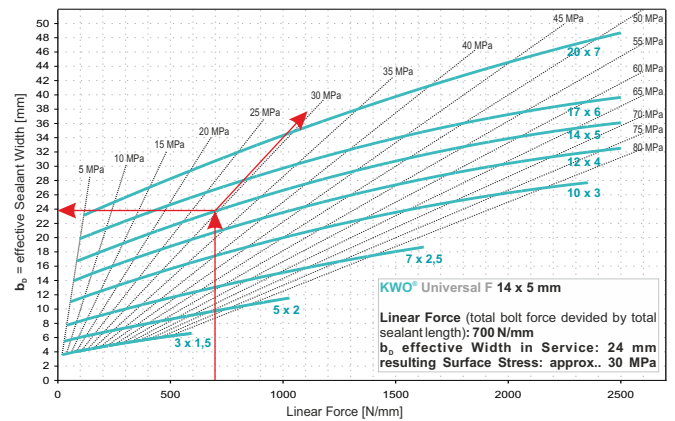
Article Number	Diameter [mm]
30010	1
30030	3
30050	5
30070	7
30100	10
30120	12
30140	14
30160	16

Quality Management

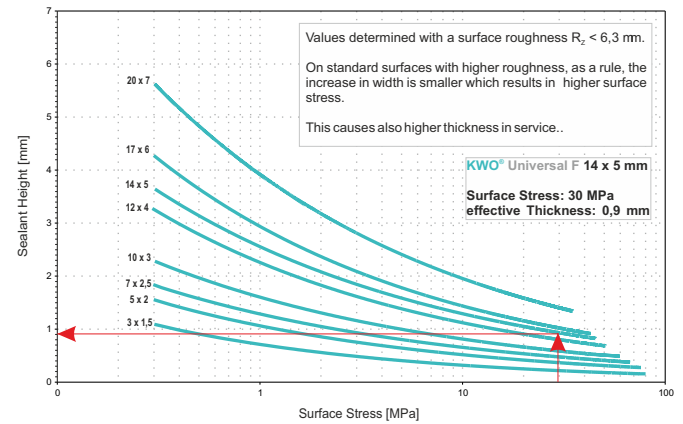
Our Quality Management System according to DIN EN ISO 9001 is the basis of our high quality - continuous improvement is thereby one of our most important goals.

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.