

# Sichem® E

Multidirectional ePTFE



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## PLANICHEM SICHEM SOLUTIONS

Planichem is an Italian manufacturing company specialised in the processing of PTFE, graphite and all the main asbestos-free materials used for the production of gasketing materials, gaskets and semi finished products of high technical value.

The company's current structure has resulted from progressive developments over the years which have led to the engineering of unique processing and manufacturing methods.

Planichem manufactures leading-edge products and innovative solutions which are protected by international patents.

Planichem's underlying goal is to provide the best quality.

Our products are our best guarantee suitable for all types of customers and applications, both standard and critical.

For a detailed list of approvals, please visit the dedicated area on our website [www.planichem.com](http://www.planichem.com).

# Sichem EL60 Multidirectional ePTFE Gasketing Sheet

## Sizes

Thickness [mm]	Standard Widths [mm]	Standard Lengths [m]
0.50	1500	1500
1.00	1500	1500
1.50	1500	1500
3.00	1500	1500

Other sizes and thicknesses are available on demand.



Sichem EL60 is a multidirectional ePTFE gasketing sheets made from 100% pure multidirectional ePTFE. The versatility of Sichem E enables them to cover a wide range of flange shapes making them ideal for various industrial applications. With their excellent chemical resistance and high blow-out safety Sichem EL60 gasketing sheets can be used in aggressive applications where other gaskets may fail. Sichem EL60 sheets are available in various thicknesses and can be customized to fit specific flange dimensions. Additionally Sichem E shows extreme adaptability to flange roughness and irregularities and high gasket stress retention.

## Properties Sichem EL60 - 3 mm thickness

### EN13555

- Qmin (40 bar He; 0,01 mg/(s\*m)): 37 MPa
- QSmin (QA=30 MPa; 40 bar He; L=0,01): < 10 Mpa
- QSmax (23°C): 160 Mpa
- Leakage Rate (Q =40 MPa; 40 bar He): <10-4 mg/(s\*m)
- PQR @ 20 °C (QA=30 MPa): 0,94

### ASTM F36

- Compressibility: 50 - 55 %
- Compressed Thickness: 1,40 mm
- Recovery: > 10
- Recovered Thickness: 1,60 mm

## Technical Data

### Material

100 % pure multidirectionally expanded PTFE  
Temperature Range of the material  
-268°C up to +260°C.

### Chemical Resistance

Resistant to all media in the range of pH 0 to 14, except for molten and dissolved alkali metals and elemental fluorine gas at high temperatures and pressures.

### Recommended Operating Range

Vacuum to 40 bar at -200°C to +230°C, depending on the individual application up to 200 bar.

### Certificates

FDA CFR 177.1550 (PTFE)

# Sichem ET60 Multidirectional ePTFE tape



Sichem ET60 tape is the high grade alternative to reduce maintenance, loss production, material costs and scrap with large diameter piping and metal or glass lined apparatus flanges. Sichem ST60 is made from 100% pure multidirectionally ePTFE. Its characteristics are directly comparable to gaskets made out of Sichem ET60 gasketing sheets material. This multidirectional ePTFE gives excellent creep resistance for a long-lasting seal, that is reliably tight and blow-out safe. Sichem ET60 has an adhesive backing and can easily be formed in place. It is highly conformable and the ideal choice for sealing large flanges and complex steel equipment in demanding applications. For the use in high purity applications Sichem ST60 is available in a GMP conforming style.

Sizes and Spool Lengths

Thickness [mm]	Standard Widths [mm]	Standard Lengths [m]
2	10 to 35 mm in 5 mm steps	10 / 15 / 25
3	10 to 65 mm in 5 mm steps	10 / 15 / 20
6	10 to 65 mm in 5 mm steps	10 / 15 / 20
9	10 to 65 mm in 5 mm steps	10 / 15 / 20

## Properties Sichem ET60 - 3 mm thickness

### EN13555

- Qmin (40 bar He; 0,01 mg/(s\*m)): 29 MPa
- QSmin (QA=30 MPa; 40 bar He; L=0,01): < 10 Mpa
- QSmax (23°C): 130 Mpa
- PQR @ 20 °C (QA=30 MPa): 0,91

### ASTM F36

- Compressibility: 50 - 55 %
- Compressed Thickness: 1,42 mm
- Recovery: 13 %
- Recovered Thickness: 1,63 mm

## Technical Data

### Material

100 % pure multidirectionally expanded PTFE  
Temperature Range of the material  
-200°C up to +260°C.

### Chemical Resistance

Resistant to all media in the range of pH 0 to 14, except for molten and dissolved alkali metals and elemental fluorine gas at high temperatures and pressures.

### Recommended Operating Range

Vacuum to 40 bar at -200°C to +230°C, depending on the individual application up to 200 bar.

### Certificates

FDA 21 CFR 177.1550 (PTFE) for Style GMP









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