

### PU-UF1

A Clear high gloss finish on both sides Poly Ether Urethane Thermo plastic film.  
Having no memory PU-UF1 will not fracture as a result of constant flexing.

#### Advantages

- Superior flexibility
- Excellent abrasion resistance
- Clear Transparent high clarity
- Smooth welded seams
- Superior chemical resistance for CIP washing
- Great aging resistance
- Non porous
- Smooth surface
- No material degradation
- Smooth welded seam
- Excellent abrasion resistance
- CIP resistant



#### Applications

Stationary, Vibratory, Gyrotory, Sifters, Screeners, Feeders, Spray driers, Fluid Bed, Static Cool Bed, Bin dischargers, Hoppers, Conveyors, Packing equipment, Storage silos, Screw conveyors, Valves, butterfly valves, Rotary valves, Tanks, Silo's, any sort of product handling equipment  
Air ducting , Fans, Inflatable seals, Covers, Outside protection sleeves, Bellows, Load cell (high volume, weight and capacity), Harmonica's, Telescopic applications, Vacuum formed shapes.

#### General Properties

<b>Name :</b>	PU-UF1
<b>Description :</b>	Poly Ether Urethane
<b>Color :</b>	Clear Transparent
<b>Surface :</b>	Gloss / Gloss (both sides)
<b>Surface Roughness :</b>	-
<b>Wall Thickness :</b>	1,00mm / 0.0393 Inch (+/-10%)
<b>Hardness :</b>	86° Shore A
<b>Tensile Strength :</b>	50 MPa
<b>Maximum Elongation :</b>	600%
<b>Operating Temperature :</b>	-40 °C to 90°C -40 °F to +194 °F
<b>Max. Surge Temp :</b>	+120 °C / +248 °F
<b>Low Temperature Flexibility :</b>	Good
<b>Air Permeability :</b>	0
<b>Type of Material :</b>	Sheet on roll, 1500x50000mm

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### Pressure Resistance for Flexible Connectors

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0,34 Bar / 5.0 PSI For temperatures up to 90 °C / 195°F

Please see "Operating Pressure Guide" for further information.

we recommend using the shortest possible connector for applications where increased pressure and/or high temperature is expected. Please contact us for more information.

### Weighing Applications

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High volume weight and capacity weighing and dosing applications please see "weighing and dosing guide" for further information.

### Chemical Resistance

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- CIP resistant (see CIP chemicals guide)
- Cleaning Chemicals (see cleaning guide)
- For a detailed chemical resistance please see our chemical compatibility chart

### ATEX & Explosion Safety

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**PU-UF1** has been tested for its electrostatic properties, and has been found ATEX compliant and safe to use in all dust explosion hazardous areas, such as ATEX zones 20, 21, 22.\*



Surface Resistance:  $5 \times 10^{12} \Omega$  IEC 60093/EN1149 and TRGS 727  
Volume Resistance:  $3 \times 10^{11} \Omega$  IEC 60093/EN1149-1 and TRGS 727  
No propagating brush discharges could be determined.  
Non Conductive but safe to use up to a length of 1000mm.\*

**PU-UF1** has also been explosion pressure tested and found safe to up to an explosion pressure of 1,5 Bar.

### Food Contact Compliancy

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PU-UF1 complies with the following regulations for plastics in repetitive contact with foods:\*

- **United States**
  - FDA 21 CFR 177.1680
- **European Community**
  - (EC) 1935/2004
  - (EC) 10/2011
  - (EC) 2019/1338
  - (EC) 2023-2006
  - (EC) 1907/2006 (REACH)
- **China**
  - GB 4806.7 – 2016
  - GB 5009.156
  - GB 31604.1 – 2015



\* Some restrictions may apply, a copy of all certifications can be downloaded, or will be sent to you upon request.

We will be happy to advise further if you have any questions.

### Production Methods used

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#### Joining / Bonding:

- Welding
  - HF high frequency welding  
Welding the material and cooling it down under compression with Radio Frequency to make the TPU material flow nearly seamless to form a uniform thickness with the original material wall thickness.
  - Heat contact – with silver alloy heating element  
Welds are welded surface to surface after which the weld are compressed while cooling.
  - Hot air – hot filtered and conditioned contaminant-, oil- and greas- free compressed air

#### Cutting :

- Stainless Steel knives
- Water Jet cutting