

# **Technical Data Sheet**



### **PTFE Cross Laminated Films**

Filcoflex B.V.'s PTFE Cross Laminated Films are 100% PTFE material that is guaranteed corrosion and contamination free, resists tearing, and has superior flexing capabilities compared to other PTFE products. PTFE Cross Laminated Films can be heat-sealed and is unaffected by UV exposure or moisture.

Because this is an all-PTFE product with excellent mechanical capability and multi-directional strength, PTFE Cross Laminated Films do not require and compromising reinforcement. Regardless of chemical exposure, PTFE Cross Laminated Films remain corrosion free and non-flammable.

PTFE Cross Laminated Films is proven in laboratory and industrial settings its ability to retain all its physical properties regardless of chemical environment.

Filcoflex B.V.'s PTFE Cross Laminated are created using a crossed multi directional pattern typically created from 0.07mm or 0,10mm film plies to produce a material with exceptional 360° tear strength and durability. Because PTFE Cross Laminated Films consist solely of PTFE resins, the product is considered chemically inert and can be used in high temperature applications, depending upon the thickness of the Film used. PTFE Cross Laminated Films has an unlimited shelf life and is compatible with all chemicals.

Available in various standard colors, black electric conductive versions, and various thicknesses

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### **General Properties**

Description : Operating Temperature :

Max. Surge Temp : Chemical Resistance : Type of Material : Poly Tetra Fluor Ethylene -60 °C to 300 °C -76 °F to 572 °F 316 °C / 600 °F Considered to be nearly Chemically inert Sheet on roll, 1200 (+/- 20mm) x 6000mm (custom on request)

Material :	2105	2109 Bl/Gr	2110	2112 AS	2120 AS	2120 TRA	2130	2140	2150	2160
Colour :	various	Bleu + Grey	various	Black	Black	Translucent	Bleu	White	various	various
Weight (gr/sqm) :	272	457,8	544	598	1088	1088	1632	2175	2727	3264
Thickness (mm) :	0,13	0,23	0,26	0,30	0,51	0,51	0,76	1,02	1,27	1,60
Tensile Strength (N/50mm) :	205	223,4	350	357,5	778	778	1135	1475	1734	2510
Tear Strength (N) :	80,1	99,8	156	158,8	295	295	372,1	500	658	1089
Hardness (°Shore A) :	96	96	96	96	96	96	96	96	96	96

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### Pressure Resistance for Flexible Connectors

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.

### ATEX & Explosion Safety

**Explosion Pressure :** no tests have been performed, this can be done upon request

#### Electrostatic Surface Resistance :

PTFE2112 AS Black FDA PTFE2120 AS Black FDA	< 10º Ohm < 10º Ohm	Conductive Conductive
PTFE2120 Translucent FDA Sleeve Length Airspeed not = Pow	> 1,8 x 10 <sup>9</sup> Ohm <100mm important ders MIE* >1mJ	Insulating
Sleeve Length	100 – 1000mm	
Airspeed >2n	n/s	
= Pow	/ders MIE* >1000mJ	
Airspeed <2n	n/s	
= Pow	/ders MIE* >10mJ	
*-MIE means Minimum Ignition Energy	ду	

Despite being insulating the material has been tested, to which relation it can be used in powder and dust transportation system. The relation between airspeed, maximum sleeve length and Minimum Ignition Energy of the powder or dust has been well documented in a report so that PTFE2120 can be implemented in explosion hazardous environments if designed within described parameters.

Name of the reports;

'9075, Report Suitability flexibles 2015 Filcoflex 02.pdf'

'TL9075TestReport\_Filcoflex\_original/pdf'

Both reports are available upon request

### PTFE films of other thicknesses or colors have not been tested thus far.

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### Food Contact Compliancy

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Filcoflex B.V. hereby declares that below mentioned list (1) of PTFE Cross Laminated Films comply with the following regulations (2) for repetitive contact with food and foodstuffs.

### PTFE Cross Laminated Films (1):

- PTFE 2109 Blue/Gray
- PTFE 2112 AS Black
- PTFE 2120 AS Black
- PTFE 2120 Translucent
- PTFE 2130 Blue

# List of regulations to which the product complies (2) FDA 21 CFR of the United States of America:

European Union :

- 177.1550 - 177.3297

- (EC) 1935/2004
  - (EC) 10/2011
  - (EC) 2003/11
  - (EC) 2005/59

Other regulations :

- REACH (SVHC)

- ROHS

### Free of substances

None of the following chemicals is intentionally added to PTFE cross Laminated Films, and are there for suspected to not be present in the PTFE material.

- Polyvinyl Chloride (PVC)
- Phthalates
- Melamine
- Silicone
- Latex
- BSE / TSE
- Animal Derived Ingredients

   (Blood, carrion, pork, animal slaughtered without mentioning the name of Allah/God, wild animal/carnivore, animal with sharp teeth and claws, amphibia)
- Khamr
- Part of Human body
- Peanuts and products thereof

### **Migration Testing Reports**

No migration testing reports are available at this moment

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### **Production Methods used**

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### Joining / Bonding:

- Hot Bar Sealing / Welding Bonded by PFA film as an adhesion / reaction layer between the PTFE layers
- No Glue or chemicals are used

### **Thermo Forming :**

- Hot bar bending / High pressure vacuum thermos forming

### Cutting :

- Stainless Steel knives
- Water Jet
- Not Suitable for laser cutting

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