Application Note

DeWAL® Materials for Convoluted Hose

Features:

- Excellent chemical resistance
- PTFE is available in natural and conductive grades
- PTFE films are compliant with FDA 21CFR 177.1550
- Temperature range from cryogenic
  - 273°C (-459°F) to 260°C (+500°F)

Benefits:

- Modified PTFE allows for bonding to itself to create a homogenous single layer
- Highly conformable PTFE coated foil protects tooling and holds the convolute form removing cleanly from assembly after processing
- Superior process-ability of PTFE coated foil over lacquered foil
- Chemical inertness

Convoluted hoses are used in high temperature chemical transfer, fuel, and hydraulic applications where kink resistance and tight routings are necessary.

Rogers offers a variety of high-performance DeWAL® materials used by many premier convoluted hose manufacturers in their production process. Our offering includes skived modified PTFE films, PTFE coated aluminum foil, conductive PTFE film, and PTFE coated glass. DeWAL skived modified PTFE and conductive films have excellent thickness control.

Application Note

DeWAL® Materials for Convoluted Hose

Where DeWAL® Products Can Be Used

Multiple DeWAL products are designed for use in convoluted hose. The below image shows an example of the uses for some of these products.

PTFE convoluted hoses provide early warning signs of weeping (passive fracture failure) within their construction before the total failure and bursting that is often observed with rigid steel hoses.

AVAILABLE PRODUCTS

PRODUCT	SUBSTRATE	THICKNESS, MINIMUM [ASTM- D374]	DENSITY [ASTM- D792]	TENSILE STRENGTH, MINIMUM [ASTM-D6040/882]	ELONGATION, MINIMUM [ASTM-D6040/882]
		mm (in)	g/cc	MPa (psi)	%
DW219	Modfied PTFE	0.0508 (0.002)	2.16	24.8 (3,600)	270
DW219C	Modfied Conductive PTFE	0.0508 (0.002)	2.16	27.5 (4,000)	250
DW350CL, DW350GR	PTFE Coated Aluminum Foil	0.127 (0.005)	-	-	-
DW105	Conductive PTFE	0.0508 (0.002)	2.14	17 (2,500)	125

DeWAL SKU Nomenclature: C - Conductive; CL - Clear; GR - Green

- Testing not available

For more information and to request a sample, please contact our team of product experts at **solutions@rogerscorp.com**