



## O-401 Oriented Film

### Characteristics

**DARTEK® O-401** is a machine direction oriented nylon type 6,6 film. Many of the properties of nylon 6,6 film are improved upon orientation, but particularly the overall toughness and gas permeability. Because it is made from type 6,6 nylon, **O-401** has superior stiffness, toughness, gas barrier, temperature resistance and tear strength. In addition, its high yield characteristics makes it an economically attractive film.

### Uses

**DARTEK® O-401** provides excellent qualities to the converter which makes it an ideal film for printing and laminating. The barrier properties and stiffness of

**O-401** makes it an excellent choice for a variety of packaging end uses such as snacks, processed meat, cheese and condiments.

### Availability:

**DARTEK® O-401** can be supplied in widths from 254mm to 2032mm (10 inches to 80 inches) in the three gauges shown below. It is treated both sides for ink, adhesive and coating receptivity.

### Yields & Unit Weights: (ASTM D-374)

<u>μm</u>	<u>mils</u>	<u>m<sup>2</sup>/kg</u>	<u>g/m<sup>2</sup></u>	<u>in<sup>2</sup>/lb</u>
15	0.60	58.0	17.3	40,800
19	0.75	46.3	21.6	32,600
25	1.00	34.8	28.7	24,500

### Standard Put-Ups

#### *Metric*

<b>I.D.</b>	<b>O.D.</b>		<b>15μ</b>	<b>19μ</b>	<b>25μ</b>
<b>Diameter</b>		<b>kg/cm of width</b>	<b>Approximate Length Per Roll in Meters Gauge in Microns</b>		
152mm	460mm	1.62	9410	7520	5650
152mm	550mm	2.43	14090	11280	8460

#### *Imperial*

<b>Diameter</b>		<b>lb/in of width</b>	<b>Approximate Length Per Roll in Feet Gauge in Mils</b>		
<b>I.D.</b>	<b>O.D.</b>		<b>0.60</b>	<b>0.75</b>	<b>1.00</b>
6"	18"	9.07	30860	24660	18530
6"	21.5"	13.59	46220	37000	27750

**DARTEK® O-401 Typical Values**

Property	Test Method	Units	Dartek® O-401	
Gauge		µm	15	
		mil	0.60	
Specific Gravity	ASTM D-692	g/cc	1.15	
Haze	ASTM D-1003	%	1.0	
Gloss (20° Gardner)	ASTM D-2457	Photocell Microamps	150	
Tensile Strength	ASTM D-882	psi	MD	35000
			TD	9000
		kg/cm <sup>2</sup>	MD	2450
			TD	630
Elongation	ASTM D-882	%	MD	50
			TD	350
Tensile Modulus	ASTM D-882	psi	MD	325000
			TD	325000
		kg/cm <sup>2</sup>	MD	23000
			TD	23000
Tear Strength (Initial Graves)	ASTM D-1004	g/mil	MD	800
			TD	600
		g/µm	MD	32
			TD	34
Tear Strength (Elmendorf-Propagated)	ASTM D-1922	g/mil	MD	75
			TD	125
		g/µm	MD	3
			TD	5
Impact Strength	ASTM D-1709	g	70	
Coefficient Of Friction	ASTM D-1894 (Film to Film/50% RH)		Kinetic .60	
Moisture Permeability	ASTM F-372	g/100 in <sup>2</sup> /24 hr	9.5	
		g/m <sup>2</sup> /24 hr	145	
Oxygen Permeability	ASTM D-3985 (0%RH/23°C)	cc/100 in <sup>2</sup> /24 hr	3.5	
		cc/m <sup>2</sup> /24 hr	54.3	
Dimensional Stability	(300°F,30min)	% Shrink	MD	2.5
			TD	0.5

All values are typical data and are not intended as limiting specifications. For additional information please contact your Liqui-Box representative.

Selection of laminating adhesives for use with PVDC coated Dartek® films.

Experience has shown that on occasion and under certain conditions, solventless adhesive systems containing neopentyl glycol (NPG) when used to laminate PVDC coated Dartek® to other films, may result in an objectionable odor in the laminated film. Because of this experience, we are recommending both solvent-based and solventless laminating adhesives for use with PVDC coated Nylon be free of NPG. Your adhesive supplier should be able to recommend a NPG-FREE adhesive formulation.

**For more information on Packaging Polymers:**



**Liqui-Box Canada**  
**201 South Blair Street**  
**Whitby, Ontario L1N 5S6**  
**Customer Service: 800/263-2742**  
**Fax: 905/666 7070**

The data listed here falls within the normal range of product properties but they should not be used to establish specification limits nor used alone as the basis of design. Liqui-Box Canada assumes no obligation or liability for any advice furnished by it or for results obtained with respect to these products. All such advice is provided gratis and Buyer assumes sole responsibility for results obtained in reliance thereon.