



# MONOLYN

## MQ31

### Technical Data Sheet

*M & Q Packaging*  
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 Schuylkill Haven, PA  
 17972

#### Product Description

Monolyn MQ31 is a transparent packaging film for use in the food, medical, and industrial markets.

- \* Food applications: MQ31 provides oil and grease resistance and is an odor barrier without flavor scalping.
- \* Medical applications: MQ31 is uniquely suited for use in sterilization processes.
- \* Industrial applications: MQ31 provides superior chemical and thermal resistance.

Monolyn MQ31 is currently available in the following (mil) thicknesses: .75, .80, .90, 1.0, 1.5, 1.6, 2.0 and 3.0. Other thicknesses are available upon request.

Properties	Values	Test Method
<i>General:</i>		
Tested at 1 mil thickness	.80	
Area Yield (sq. in./lb)	30,645	
Haze, %	6.6 – 7.1	ASTM D1003
Gloss, 20 Degree	90.3 – 91.4	ASTM D2457
<i>Mechanical:</i>		
Tensile Strength (psi)	14,100 – 21,400	ASTM D882
Elongation, %	320 - 380	ASTM D882
Tear, Graves (grams/mil)	470 - 540	ASTM D1004
Puncture Strength (grams)	340 - 410	ASTM F1306 (1.2mm dia. probe @ 1 in/min)
<i>Coefficient of Friction:</i>		
Film-Film, Side A-B Kinetic	.51	ASTM D1894
Film-Metal Kinetic	.43	
<i>Permeability:</i>		
Oxygen Transmission Rate .80 mil		
0 % R.H., 73 deg F	3.54	ASTM D3985
50% R.H., 73 deg F	2.34	ASTM F1927
90% R.H., 73 deg F	10.34	ASTM F1927
Oxygen Transmission Rate 1 mil		
100% R.H., 73 deg F	4.86	ASTM F1927
Oxygen Transmission Rate 2 mil		
100% R.H., 73 deg F	3.17	ASTM F1927
Water Vapor Transmission Rate		
90% R.H., 100 deg F	39.4	ASTM F1249

#### FDA Statement

Monolyn MQ31 is manufactured from resins that meet all the requirements of the Food and Drug Administration regulations 21 CFR 177.1500 (a) (1)(6), (b)(1)(6.1) and 21 CFR 178.2010 to produce articles intended for use in the processing, handling and packaging of food products. Monolyn MQ31 films that are 6.00 mils or less in thickness meet the above FDA requirements for use in the processing, handling and packaging of food products.

*Notice: The values presented in this data sheet are typical values based on the thickness of the film and should not be interpreted as product specifications. The statements, information and data given are believed to be accurate and reliable, but are presented without guarantee, warranty or responsibility of any kind, expressed or implied. Since the actual conditions of use and the specific uses of our products are beyond our control, all risks of such use are assumed by the user. The use of this product should be tested fully by the user in the specific application to determine fitness for use.*