# DeWAL DW 401

## Ultra High Molecular Weight Polyethylene

#### **DeWAL Industries**

### Message:

Skived Ultra High Molecular Weight Polyethylene film (UHMW)

UHMW has extremely high abrasion resistance, exceeding the abrasion resistance of steel. This coupled with broad chemcial resistance and low coefficient of friction makes UHMW an extremely versatile engineering material for many severe service applications. Application examples include inner and outer surfaces for potable water, chemical, fule and hydraulic hoses, bottom surfaces for skis and snow boards as well as linings for chutes to decrease friction and wear. Also widely used in automotive weatherstrip applications to reduce friction

General Information			
Features	Good Abrasion Resistance		
	Good Chemical Resistance		
	Good Wear Resistance		
	High Tensile Strength		
	Low Friction		
	Ultra High Molecular Weight		
Uses	Abrasion Resistant Liners		
	Hose		
	Industrial Applications		
	Sporting Goods		
	Weatherstripping		
Forms	Film		
Physical	Nominal Value	Unit	
Density	0.930	g/cm³	
Water Absorption (Saturation)	0.010	%	
Thickness	76.2 to 1570	nm	
Deformation <sup>1</sup> (50°C)	6.0 to 8.0	%	
Core ID	7.62	cm	
Core Type	Upon Request		
Maximum Roll OD	356	mm	
Width <sup>2</sup>	6.35 to 1220	mm	
Films	Nominal Value	Unit	Test Method
Tensile Strength - MD (Yield)	41.4	MPa	ASTM D882
Tensile Elongation - MD (Break)	300	%	ASTM D882
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Annealed)	95.0	°C	ISO 75-2/A
Melting Temperature	135	°C	
CLTE - Flow	2.0E-4	cm/cm/°C	ASTM D696

Thermal Conductivity (23°C)	0.063	W/m/K	
Electrical	Nominal Value	Unit	Test Method
Dielectric Strength	39	kV/mm	ASTM D149
Dielectric Constant <sup>3</sup>	2.30		ASTM D150
Dissipation Factor	4.0E-4		ASTM D150
NOTE			
1.	2000 psi, 6 hr		
2.	(increments of 1/16"), Metric Widths Available upon request		
3.	(2H 10e6 HZ)		

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#### Recommended distributors for this material

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