



# POLYMER INDUSTRIES

GEARED TOWARDS EXCELLENCE

## UNITAL<sup>®</sup> ACETAL



UNITAL ACETAL - Polyoxymethylene Copolymer (POM-C)



Easily machined



Low water absorption

### APPLICATIONS

- |                           |                       |
|---------------------------|-----------------------|
| Pistons                   | Gears                 |
| Valves                    | Wear strips           |
| Manifolds                 | Pump Components       |
| Timing Screws             | Bushings and Bearings |
| Scraper Blades            | Electrical Components |
| Food Product Forming Dies |                       |

### SHAPES AND SIZES

#### Rod Diameter

UNITAL C	0.25" - 12.0"
UNITAL C BK	0.25" - 8.0"
UNITAL esd	0.250" - 2.5"

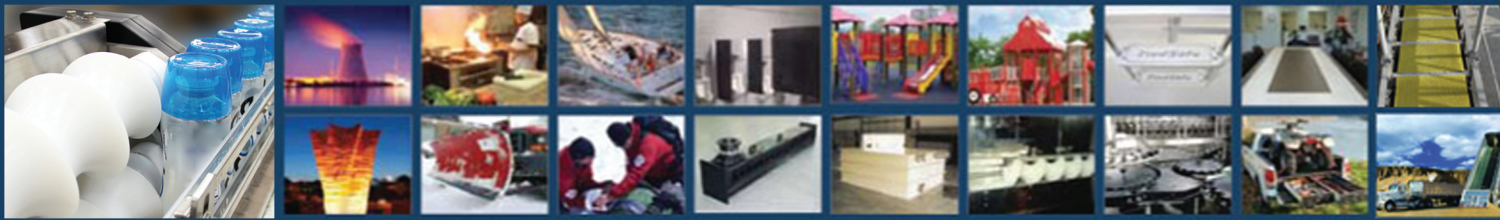
#### Sheet Thickness

UNITAL C	0.188" - 5.0"
UNITAL C BK	0.188" - 4.0"
UNITAL esd	0.250" - 2.0"

#### Sheet Length x Width

48" x 24"





# UNITAL<sup>®</sup> ACETAL

	Test Method	Units	UNITAL C UNITAL C BK (Unfilled Copolymer)	UNITAL esd (Static Dissipative Copolymer)
<b>Mechanical</b>				
Specific Gravity	ASTM-D792	---	1.4	1.33
Tensile Strength	ASTM-D638	psi	9,000-10,200	6,600
Tensile Elongation	ASTM-D638	%	30-60	45
Tensile Modulus of Elasticity	ASTM-D638	psi	400,000	
Flexural Strength	ASTM-D790	psi	12,000	7,000
Flexural Modulus of Elasticity	ASTM-D790	psi	366,000	210,000
Compressive Strength	ASTM-D695	psi	15,000	
Izod Notched Impact	ASTM-D256	ft.-lb./in.	1	2
Rockwell Hardness	ASTM-D785	M or R scale	M90	
<b>Thermal</b>				
Coef. of Linear Thermal Expansion	ASTM-D696	in./in./deg F	5.4 x 10 <sup>-5</sup>	6.5 x 10 <sup>-5</sup>
Max. Continuous Use Temp.	Internal Std.	°F	185	185
Heat Deflection Temp. @ 264 psi	ASTM-D648	°F	220	141
Melting Point	ASTM-D3418	°F	335	
<b>Electrical</b>				
Dielectric Strength-Short Term	ASTM-D149	volts/mil	500	
Dielectric Constant @ 60 Hz	ASTM-D150		3.8	
Dielectric Constant @ 106Hz	ASTM-D150		3.8	
Dissipation Factor @ 60 Hz	ASTM-D150		0.003	
Volume Resistivity	ASTM-D257	ohm-cm	10 <sup>15</sup>	10 <sup>9</sup> -10 <sup>7</sup>
<b>Miscellaneous</b>				
Water Absorption/24 hrs.	ASTM-D570	% weight	0.25	0.2
Water Absorption @ Saturation	ASTM-D570	% weight	0.8	2.5
Flammability	UL-94		HB	HB
Dynamic Coefficient of Friction	Internal Std.		0.21	
<b>Agency Approvals</b>				
FDA			Yes	No
USDA			Yes	No
NSF			Yes	No
3-A Dairy			Yes	No

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## POLYMER INDUSTRIES

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**Mechanical Division:** Pisgah, AL  
**Ultrapoly Division:** Tacoma, WA

**West Coast Distribution:** Salt Lake City, UT  
**Midwest Distribution:** Bolingbrook, IL