

# Static Control Pomalux®

(static control acetal)

**Pomalux SD-A (Static-dissipative acetal copolymer)** Non-carbon-filled, permanently static-dissipative material which is non-migratory and non-humidity dependent. With enhanced lubricity, Pomalux SD-A provides superior wear resistance and ease of machining. Its extremely low outgassing values and non-sloughing characteristics make it ideal for applications where particulate generation cannot be tolerated. Enhanced lubricity, chemically resistant, and dimensionally stable.

**Pomalux CN-F (Conductive Acetal Copolymer)** Non-sloughing carbon-fiber-filled material which is extremely strong and stiff with excellent dimensional stability. Abrasion-resistant, highly chemical-resistant, with temperature resistance to 320° F.

**Pomalux CN-SS (Conductive Acetal Copolymer)** Stainless-steel-fiber-filled, non-sloughing, dimensionally stable material HDT @ 264 psi of 225° F. This material has relatively high chemical resistance, is extremely strong and stiff, and is an excellent choice for situations where carbon-based conductive fillers are not acceptable. Easily machined with carbide-tipped tooling to tight tolerances.

The following physical property information is based on typical values of the resin.

	Units	ASTM Test	Pomalux SD-A	Pomalux CN-F	Pomalux CN-SS
<b>Mechanical</b>					
Tensile strength @yield	psi	D638	6,600	11,900	8,600
Tensile elongation @break	%	D638	45.0	3.5	-
Flexural strength	psi	D790	7,000	14,300	13,000
Flexural modulus	psi	D790	210,000	1,225,000	400,000
Izod impact strength					
Notched	ft•lbs/in	D256	2.0	1.0	0.7
Un-Notched	ft•lbs/in	D256	no break	3.5	-
Hardness-Shore D		D2240	76	88	86
<b>Thermal</b>					
Heat deflection temperature					
@264 psi	°F	D648	141	320	225
@66 psi	°F	D648	267	-	-
Coefficient of thermal expansion	in/in/°F	D696	6.5 x 10 <sup>-5</sup>	-	4.9 x 10 <sup>-5</sup>
Thermal conductivity	(BTU•in)/(hr•ft <sup>2</sup> •°F)		2.10	-	-
Flammability rating-UL94			HB	HB	-
<b>Electrical</b>					
Surface resistivity dry	ohm/sq	D257	10 <sup>9</sup> - 10 <sup>11</sup>	10 <sup>2</sup> - 10 <sup>6</sup>	10 <sup>2</sup> - 10 <sup>6</sup>
Volume resistivity dry	ohm/cm	D257	10 <sup>9</sup> - 10 <sup>11</sup>	10 <sup>3</sup> - 10 <sup>7</sup>	10 <sup>2</sup> - 10 <sup>6</sup>
Static decay, 15% RH	seconds	MIL-B-81705-B	<0.3	<0.1	-
<b>Other</b>					
Specific gravity		D792	1.33	1.46	1.5
Water absorption @24 hours	%	D570	2.50	0.22	-

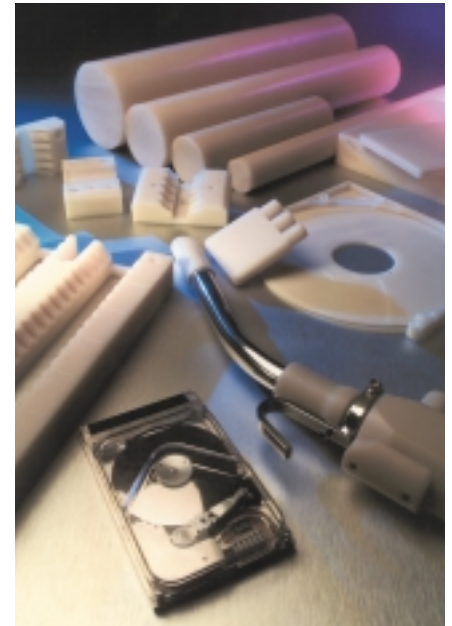
CN-F = conductive carbon-fiber-filled material  
 SD-A = static-dissipative non-carbon-alloy-filled material  
 CN-SS = conductive stainless-steel-fiber-filled material

<sup>1</sup>Ultimate elongation

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**Applications Include:**

- Disk drive assembly fixtures
- Semiconductor/electronic components
- Telecommunication hardware
- Automotive equipment

**Advantages of Pomalux SD-A, CN-F and CN-SS:**

- Low outgassing
- Consistent resistivity values
- Ease of machining
- Good chemical resistance

**Manufacturing Capabilities:**

- Rod:** 1/8" to 4" diameter
- Sheet**(CN-F & CN-SS): 1/4" to 4" thick
- Sheet**(SD-A): .030" to 4" thick
- Film**(SD-A only): .010" to .029" thick

**Colors/Grades:**

- SD-A—Natural (beige)
- CN-F—Black
- CN-SS—Dark Gray

\*In addition to our standard capabilities, Westlake also has the ability to process custom resins in various sizes and colors with some exceptions.

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