

ENSINGER

PRODUCT DATA SHEET

ENSITAL[®] SD

(static dissipative copolymer acetal)

ENSITAL SD is a natural copolymer acetal with static dissipative characteristics. Its comparatively low surface and volume resistivities, excellent bearing and wear properties, and toughness make ENSITAL SD an ideal material for moving

components experiencing friction, or parts subject to fluid flow contact. ENSITAL SD contains noncarbon, permanently anti-static additives which do not migrate and are not affected by humidity levels.

■ **Permanently anti-static**

ENSITAL SD has a surface resistivity of $10^9 - 10^{11}$ ohms/square

■ **Superior bearing and wear properties**

Compared to unfilled acetal, ENSITAL SD has significantly improved wear rates.

■ **Low coefficient of friction**

■ **Contains no carbon additives**

ENSITAL SD is an inherently static-dissipative composite containing no carbon and is generally acceptable for clean room applications.

■ **Good impact properties**

■ **Unaffected by humidity**

Both the copolymer acetal base and anti-static alloying additives are unaffected by moisture.

■ **Insulates against moderate to high leakage currents**

Because ENSITAL SD has resistivity values at the upper end of the dissipative range, it is an effective insulator against moderate and high leakage currents.

■ **Non-particulating**

ENSITAL[®] SD is an inherently anti-static copolymer acetal that is ideal for applications requiring static dissipation that cannot tolerate the presence of carbon. It has excellent wear properties and is targeted to the business machine, semiconductor, and electrical/electronic markets.

Typical Property Values

Properties	ASTM Test Method	Units	ENSITAL® SD
PHYSICAL			
Specific Gravity	D792	n/a	1.33
Water Absorption - 24 hours, 73° F	D570	%	0.20
Heat Deflection, 264 psi	D648	°F	190
Melting Point	-	°F	347
MECHANICAL			
Tensile Strength	D638	psi	6,600
Tensile Elongation	D638	%	40-50
Flexural Strength	D790	psi	7,000
Flexural Modulus	D790	psi	210,000
Izod Impact (notched)	D256	ft-lbs/in	1.8
BEARING AND WEAR			
Wear Factor (K)	-	-	13 x 10 ⁻¹⁰
Dynamic C.O.F. @40 psi and 50 fpm	-	-	0.18
Static C.O.F.	-	-	0.11
ELECTRICAL			
Surface Resistivity	D257	ohms/square	10 ⁹ - 10 ¹¹
Volume Resistivity	D257	ohm - cm	10 ⁹ - 10 ¹¹

This information is only to assist and advise you on current technical knowledge and is given without obligation or liability. All trade and patent rights should be observed. All rights reserved.

Material Availability--

Rods: Diameters: 1/4 inch to 8 inches
Length: 10 feet

Plates: 1/4" to 2" thickness inclusive are 24 x 48 inches
2 1/4" to 4" thickness inclusive are 12 x 48 inches

Profiles, tubes, and special sizes are custom-produced on request.

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