

# PYRATHANE<sup>®</sup> 83ASD

(Static Dissipative)

*This material is a more specialized version of our PYRATHANE products family and therefore a modest upcharge is associated with it.*

Please see our product brochure for information regarding our standard products.

PYRATHANE 83ASD is a polyester-based polyurethane which is identical in appearance to our 83A PYRATHANE. 83ASD is formulated to provide clean, permanent ESD (electrostatic discharge) protection and is humidity insensitive making it applicable for electronic component handling and other static intolerant applications.

Belts of both flat and round cross sections can be manufactured of the 83ASD material.

As the modulus of PYRATHANE 83ASD is slightly lower than our 83A material, we would recommend an initial stretch of approximately 12-1/2% which is somewhat higher in order to compensate.

This higher initial stretch will provide approximately the same tension as our 83A material at 10%.

When considering 83ASD for your application, and when an initial stretch of 12-1/2% is utilized, other general information provided in our product brochure will be applicable.

## PROPERTIES AND CHARACTERISTICS OF PYRATHANE 83ASD (approximate)

### SHORE HARDNESS

"A" Scale 82 +/- 3  
ASTM D 2240

### ULTIMATE TENSILE STRENGTH

PSI 4,300  
ASTM D 412

### ULTIMATE ELONGATION

% 670  
ASTM D 412

### TENSILE MODULUS

PSI @100% ELONGATION 740  
PSI @300% ELONGATION 1,160  
ASTM D 412

### TEAR STRENGTH

PLI Die "C" 370  
ASTM D 646

### RESISTIVITY

Surface  $1.1 \times 10^{11}$  ohms/square  
Volume  $2.0 \times 10^{10}$  ohms-cm  
ASTM D-257

### STATIC DECAY RATE 12% R.H.

+5000 V to 50 V 0.9 seconds  
-5000 V to -50 V 0.9 seconds  
FTMC-101C

To assist in your considerations of this material, we believe the following comparisons to our standard 83A PYRATHANE might be helpful.

### ADVANTAGES

- Permanently static dissipative  
(Independent of humidity level)
- Ultra-Clean: Low off-gassing, low contamination

### DISADVANTAGES

- Slightly lower modulus
- Slightly lower Tensile strength

This data is provided for general information and material comparison. The potential user should perform tests to determine the product's performance and suitability in the intended application. Final determination of the fitness of the product for any particular use is the responsibility of the buyer.