



**Product
Bulletin**

900-02

MICROSORB D-0005
 Very Low-Loss Dielectric Sheet

GENERAL DESCRIPTION

MICROSORB D-0005 is a low-loss polystyrene material available in sheet and rod form. Being a thermoplastic, **MICROSORB D-0005** will not flow at high temperatures.

MICROSORB D-0005 useful in microwave applications as spacers in connectors, in coaxial transmission lines, waveguide supports, antenna insulators, and as complete microwave lenses

MICROSORB D-0005 has excellent physical properties, for stability and has structural integrity at low temperatures.

SPECIFICATIONS

Specific Gravity	1.06
Dielectric Constant	2.54
Loss Tangent	0.0005
Hardness, Rockwell, M	105
Thermal Conductivity	
(BTU)(in)/(hr)(ft ²)(°F)	0.87
(cal)(cm)/(sec)(cm ²)(°C)	0.0003
Water Absorption, % 24 Hours	0.003
Dielectric Strength, v/mil (kv)/mm) >10 ¹⁶
Volume Resistivity, ohm-cm	>10 ¹⁶
Service Temperature, °F	-94 to 257
(°C)	(-70 to 125)
Tensile Strength, psi (kg/cm ²)	11,000 (770)
Flexural Strength, psi (kg/cm ²)	17,000 (1,190)
Modulus of Elasticity, psi (kg/cm ²)	300,000 (21,000)
Izod Impact, ft-lb/in (kg-cm/cm) of notch	0.4 (2.2)
%TML	0.29

APPLICATION

MICROSORB D-0005 is easily machined. Tools should be kept very sharp. Feed rate should be initially low and then increased with emulsion type coolants recommended.

Microsorb can provide finished parts to your drawings. Consult Microsorb Customer Service for additional information and assistance.

SIZES

MICROSORB

Sheets 12" x 12" (30.5cm x 30.5cm)

Thicknesses of
 1/8", 1/4", 1/2", 3/4", 1.0", 2.0", 3.0" and 6"

Rods:

12" long (30.5cm)

Diameters of
 1/8", 1/4", 3/8", 1/2", 5/8", 3/4", 1.0", 1.5", 2.0",
 2.5" & 3.0"

Other sizes are available upon request.