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**Product
Bulletin**

100-02

MICROSORB MSF-U

Thin, Flexible, Urethane Resonant Absorber

GENERAL DESCRIPTION

MICROSORB MSF-U is a series of thin, flexible, resonant absorbers which reflect 1% or less of normally incident microwave energy at \pm 5% of the design frequency. **MSF-U** maintains good reflectivity at incident angles up to 45°.

MICROSORB MSF-U is based on urethane elastomeric chemistry. **MSF-U** has a temperature range of -80°F to 275°F (-62°C to 135°C) and is unaffected by exposure to weather or moisture.

MICROSORB MSF-U is ideally suited to applications requiring a very thin microwave absorber at a narrow band of frequencies. It is used on masts of ships, aircraft, marine applications, radar nacelles to prevent damage to radar receivers caused by large reflections; in cavity back and shrouded telecommunications antennas and equipment.

APPLICATION

MICROSORB MSF-U can be bonded onto substrates with most adhesives or with Pressure Sensitive Adhesive backing. **MSF-U** is a resonant absorber which means for proper electrical operation it must be backed by a conductive (metallic) surface.

MICROSORB Technologies offers the addition of

- ❖ Pressure Sensitive Transfer Adhesive on the back surface, for ease of application.
- ❖ EMI Metal Foil on the back surface to provide a ground plane.
- ❖ Fabrication of material into shapes to your specific drawing requirements. We offer die-cutting, water-jet, slitting or spraying services.

SPECIFICATIONS

Density, g/cm³

Service Temperature, °F (°C)

-80 to 275

(-62 to 135)

Hardness, Shore A

80 – 86

Advantages:

- ❖ Excellent Weather Ability
- ❖ Excellent Abrasion Resistance
- ❖ High Tensile Strength
- ❖ High Elongation.

SIZES

MICROSORB MSF-U

is available in sheet 12" x 12"

- Microsorb offers custom sizes and frequencies. Please contact your **MICROSORB** Customer Service Department to discuss your specific requirements.

Warranty: This information is, to the best of Microsorb Technologies knowledge, accurate as of the date indicated. This information relates only to the specific materials designated herein and is not intended for the application or use of the materials with any other materials or in any process. The information is intended as a general guide only and does not constitute a warranty or representation whatsoever and MICROSORB TECHNOLOGIES HEREBY DISCLAIMS ALL EXPRESS AND IMPLIED WARRANTIES ARISING FROM THE USER'S RELIANCE ON OR USE OF THIS INFORMATION.

Rev 2 041607



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MICROSORB MSF-U GRADE	Thickness inches (mm)	Weight lb/ft² (kg/m²)
MSF-U-800	0.320 (8.138)	5.1 (24.9)
MSF-U-1.0	0.250 (6.35)	3.80 (15.3)
MSF-U-1.5	0.200 (5.08)	2.80 (13.7)
MSF-U-2.0	0.130 (3.30)	2.70 (13.2)
MSF-U-2.5	0.125 (3.175)	2.20 (10.7)
MSF-U-3.0	0.125 (3.175)	1.90 (9.3)
MSF-U-3.5	0.095 (2.41)	1.70 (8.3)
MSF-U-4.0	0.095 (2.41)	2.10 (10.2)
MSF-U-4.5	0.095 (2.41)	1.90 (9.3)
MSF-U-5.0	0.080 (2.03)	1.60 (7.8)
MSF-U-5.5	0.080 (2.03)	1.70 (8.3)
MSF-U-6.0	0.080 (2.03)	1.60 (7.8)
MSF-U-6.5	0.080 (2.03)	1.50 (7.3)
MSF-U-7.0	0.062 (1.57)	1.40 (6.8)
MSF-U-7.5	0.062 (1.57)	1.30 (6.3)
MSF-U-8.0	0.062 (1.57)	1.30 (6.3)

MICROSORB MSF-U GRADE	Thickness inches (mm)	Weight lb/ft² (kg/m²)
MSF-U-8.5	0.062 (1.57)	1.20 (5.9)
MSF-U-9.0	0.062 (1.57)	1.30 (6.3)
MSF-U-9.5	0.060 (1.52)	1.20 (5.9)
MSF-U-10.0	0.060 (1.52)	1.20(5.9)
MSF-U-10.5	0.060 (1.52)	1.10 (5.4)
MSF-U-11.0	0.060 (1.52)	1.10 (5.4)
MSF-U-12.0	0.060 (1.52)	1.00 (4.9)
MSF-U-13.0	0.060 (1.52)	0.90 (4.4)
MSF-U-13.5	0.058 (1.47)	0.90 (4.4)
MSF-U-14.0	0.058 (1.47)	0.90 (4.4)
MSF-U-15.0	0.054 (1.37)	0.80 (3.9)
MSF-U-16.0	0.048 (1.22)	0.80 (3.9)
MSF-U-17.0	0.048 (1.22)	0.60(2.90)
MSF-U-18.0	00.48 (1.22)	0.60(2.90)
MSF-U-24.0	0.042 (1.07)	0.60(2.90)

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