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**Product
Bulletin**

200-02

MICROSORB HCS
Lossy Honeycomb

GENERAL DESCRIPTION

MICROSORB HCS is a series of honeycomb absorber materials which provide high microwave loss in combination with structural strength. **MICROSORB HCS's** open cell structure enables high power handling capabilities with a forced air cooling system to draw off the generated heat.

MICROSORB HCS also exhibits very good performance when used as a specular absorber (see performance graphs). Reflectivity performance can be custom tuned to your frequency band of interest.

MICROSORB HCS is the material of choice where high absorption coupled with structural strength is a requirement.

APPLICATION

MICROSORB TECHNOLOGIES offers **MICROSORB HCS**:

- ❖ Fabrication into shapes to your specific drawing requirements.
- ❖ HCS is also available custom machined into a pyramidal shape (**HCS-PYR**) which combines the excellent reflectivity performance of **PYR** material with the power handling capability of HCS.
- ❖ Addition of skins and backplanes.

SPECIFICATIONS

Density, g/cm³ 4.5 lbs/ft³
Thermal Conductivity
(BTU)(in)/(hr)(ft²)(°F)
(cal)(cm)/(sec)(cm²)(°C)
Water Absorption, % 24 Hours

Service Temperature, °F (°C)
Neoprene -65° (-54) to + 250° (121)
Phenolic -65° (-54) to + 350° (177)

Cell Size 3/16"
Other cell sizes available upon request:
0.187", 0.125", 0.250"

ELECTRICAL PROPERTIES

- ❖ Insertion loss: from 2 to 30 dB/inch
- ❖ Reflectivity: -15 dB minimum

SIZES

MICROSORB HCS is available in a range of thicknesses (0.125", 0.5", 0.75", 1.0", 2.0") and insertion loss values. Custom values are easily implemented. **HCS** is available in standard sizes of 12" x 12" and 24" x 24" but other sizes are available upon request.

When ordering please specify thickness and desired insertion loss or reflectivity at frequency.

Please contact your **MICROSORB** Customer Service Department to discuss your specific requirements.

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