

ECCOSTOCK® LoK

LOW LOSS, LOW DIELECTRIC CONSTANT MATERIAL

Description :

ECCOSTOCK LoK is a low dielectric constant, low loss and low weight thermosetting plastic rod and sheet for RF and microwave insulation. It is specifically designed for use in coaxial, waveguide and antenna support problems. Due to the low dielectric constant, reflections in transmission lines are minimized. RF coils wound on ECCOSTOCK LoK exhibit higher Q than when wound on polystyrene or other plastic stock. ECCOSTOCK LoK weighs only about half that of polystyrene and one quarter that of polytetrafluorethylene.

ECCOSTOCK LoK has better dimensional stability than other low loss plastics. It has a very low thermal expansion coefficient. It will not cold flow, nor will it flow when heat is applied. Soldering iron temperatures will not soften ECCOSTOCK LoK and will only slightly degrade in the immediate area of contact.

ECCOSTOCK LoK is usable from -70°C to +150°C.

ECCOSTOCK LoK is completely unicellular and is unaffected by moisture.

Availability :

ECCOSTOCK LoK is available in sheets, rods, bars and custom shapes. Machinability is excellent. Gumming does not occur; automatic screw machine operations are possible with it.

Physical Properties :

Specific gravity	0.54
Flexural strength Kg/cm ²	420
Coefficient of linear expansion (µm/(m°C))	50 x 10 ⁻⁶
Water absorption (% gain in 24h at 25°C)	0.1

Electrical Properties:

Dielectric constant (at X-band)	1.7
Dissipation factor	< 0,004
Volume resistivity (Ohm/cm)	10 ¹⁴

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Safety Considerations : It is recommended to consult the EMERSON & CUMING MICROWAVE PRODUCTS product literature, including material safety data sheets, prior to use EMERSON & CUMING MICROWAVE PRODUCTS products. These may be obtained from your local sales office.

WARRANTY : Values shown are based on testing of laboratory test specimens and represent data that falls within the normal range of properties of the material. These values are not intended for use in establishing maximum, minimum or ranges of values for specific applications purposes. Any determination of the suitability of the material or any use contemplated by the user and the manner of such use is the sole responsibility of the user who must assure that the material as subsequently processed meets the needs of this particular product or use.

We hope the information given here will be helpful. It is based on data and knowledge considered to be true and accurate and is offered for the user's consideration, investigation and verification but we do not warrant the results to be obtained. Please read all statements, recommendations or suggestions in conjunction with our conditions of sale INCLUDING THOSE LIMITING WARRANTIES AND REMEDIES which apply to all goods supplied by us. We assume no responsibility for the use of these statements, recommendations or suggestions nor do we intend them as a recommendation for any use which would infringe any patent or copyright.

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