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Phenolic Beads, Hollow

Catalog Number: 17806

DESCRIPTION

In many uses of liquid resins, it is desirable to reduce the weight of the finished product. One way to reduce the weight below the original resin weight is to incorporate a suitable additive. Hollow phenolic microspheres are excellent for use in a variety of industrial applications. They are lightweight, chemically inert, and mechanically strong. They can be used in adhesives, gap filling formulations, sandable putties, syntactic foams, and molded and laminated structures that must be lightweight and strong. About 30% by weight will make most resins unpourable. Filled casting are quite machinable; turns casting brown.

CHARACTERISTICS

Composition:	Phenolic resin (Phenol formaldehyde resin)
Size Range:	~5-127µm
Appearance and Odor:	Red brown powder, odorless
Solubility:	Insoluble in water

Nominal Reference Values

Bulk Density:	0.104 g/cm^3, max; 6.5 lb/ft^3, max
Relative Density:	0.20-0.80 g/cm^3
Average Hydrostatic Compressive Strength:	350psi
Tg, Glass Transition Temperature:	200-220˚C

REFERENCES

1. Yusriah, L., Mariatti, M., & Abu Bakar, A. (2010). *The properties of vinyl ester composites reinforced with different types of woven fabric and hollow phenolic microspheres.* Journal of Reinforced Plastics and Composites, 29(20), 3066-3073.
2. Rutz, B. H., & Berg, J. C. (2010). *A review of the feasibility of lightening structural polymeric composites with voids without compromising mechanical properties.* Advances in Colloid and Interface Science, 160(1-2), 56-75.
3. Wouterson, E. M., Boey, F. Y., Hu, X., & Wong, S. C. (2007). *Effect of fiber reinforcement on the tensile, fracture and thermal properties of syntactic foam.* Polymer, 48(11), 3183-3191.

STORAGE

Store at 25˚C.

This product is for research use only and is not intended for use in humans or for *in vitro* diagnostic use.

ORDERING INFORMATION

Cat. #	Description	Size
17806-500	Phenolic Beads, Hollow	100g

TO ORDER

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