

Eccolite® Ultra Syntactic Foam

Eccolite® Ultra syntactic foam plug assist material is a new engineered thermoplastic compound incorporating Eccospheres® glass microspheres. It is one of the toughest materials designed for the thermoforming plug assist application and boasts an exceptionally high temperature characteristic in withstanding 220°C in service temperatures.

Using conventional tooling, machining of this product is practically dust and ribbon free while its ease of machinability allows Eccolite® Ultra syntactic foam to be readily tapped for threaded inserts.



Durability

This engineered system is proven to withstand the most stringent operational environments. Tough long lasting plugs equates to greater throughput and efficiency leading to extended product life, reduced downtime and increased profits.

Machining

There are no special tools required to machine this material, however we do recommend the use of carbide tools. Eccolite® Ultra

Typical Properties				
	SI Units	Value	Imp.Units	Value
Melting Point	°C	220	°F	428
Coefficient of Thermal Expansion	10-6 mm/m.°C	80	10-6 in/in.°F	145
Specific Heat	J/kg.K	1.48	BTU/lb.°F	0.354
Thermal Conductivity	W/m.K	0.165	Btu/ft.hr.°F	0.095
Compressive Strength	MPa	69	psi	10,000
Compressive Modulus	MPa	2365	psi	343,000
Izod Impact (unnotched)	J/m	72	ft.lb/in	1.35

syntactic foam does not ribbon during the machining process however a fine chip will develop. Although this material is not considered harmful, during machining respiration protection, eye protection and extra ventilation are all recommended typically inline with standard shop practices.

Safety

This material is safe to handle and there are no special requirements to be observed with the exception of those recommendations referenced in the machining process.



Technical Assistance

Emerson & Cuming Composite Materials, Inc. welcomes discussions with potential users with reference to the ways in which Eccolite® Ultra syntactic foam can help increase productivity and reduce costs.

Emerson & Cuming will be pleased to provide additional information and assistance to help users achieve maximum benefits from Eccolite® Ultra syntactic foam, please contact your nearest representative.