# Cyclics® Formlite™

## Thermoplastic

## Cyclics Corporation

#### Message:

Cyclics Formlite is a thermoplastic syntactic foam plug assist material, designed specifically for the thermoforming industry. Unlike alternative plug assist materials, Formlite is manufactured

using advanced engineering CBT and high-quality glass microspheres. Formlite provides low thermal conductivity, excellent thermal stability, and superior properties required to achieve fine

details in the formed part.

Cyclics developed Formlite to meet the demands for a high temperature plug assist material that machines freely to a superior quality surface. The unique formulation provides virtually dust-free

machining while giving the user extended durability, lower heat up times, greater throughput, and clearer parts.

Features:

Easy Machinability

Smooth surface finish

High heat distortion temperature

**Excellent durability** 

Dimensional stability

Clarity

Custom casting

Applications:

Formlite syntactic foam can be used to form a variety of polymer sheet materials, including in-line and sheet-feed systems and is widely used in the food, medical and packaging industries to form a wide variety of components. Formlite works exceptionally well with polyolefin, polypropylene, APET, and CPET.

General Information	
Features	Good dimensional stability
	Excellent appearance
	Workability, good
	Durability
	Definition, high
	Thermal stability, good
Uses	Thermoforming Applications
	Packaging
	Non-specific food applications
	Foam
	Sheet
	Food packaging
	Drug packaging
	Medical packaging

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.750	g/cm³	ASTM C128
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	66		ISO 868

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2200	MPa	ASTM D638
Compressive Strength	69.0	MPa	ASTM D695
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (	(0.45		
MPa, Unannealed)	211	°C	ASTM D648
CLTE - Flow (23 to 80°C)	7.4E-5	cm/cm/°C	ASTM E831
Thermal Conductivity (25°C)	0.16	W/m/K	ASTM D5470
Injection instructions			

Cutter: 2-3 Flute Tungsten CarbideSpeed: 3,000-3,500 rpmCut Depth: 6 mm MaxFeed: .76 - .89 m/min

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#### Recommended distributors for this material

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