



LIGHT & LARGE PLUG ASSIST

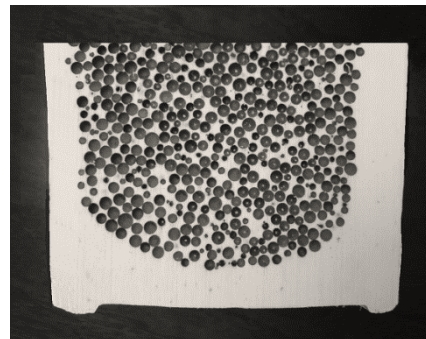
THERMOPLASTIC SYNTACTIC FOAM

➤ OVERVIEW

OptiForm X2L is a syntactic foam developed for plug assists and pushers used with positive or negative tooling in heavy gauge thermoforming applications.

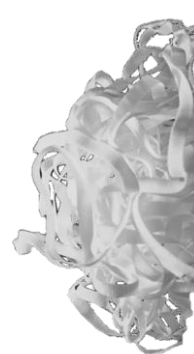
It combines a two part system: OptiForm thermoplastic syntactic foam with a core of hollow macrospheres in order to reduce up to 40% of weight.

The core and the casting part will be specially designed according to your specific needs keeping dimensional stability and mechanical properties.



➤ TECHNICAL PROPERTIES

Density (ρ)	44 - 48 lb/ft ³	710 - 770 kg/m ³
Thermal Conductivity (k)	0,086 BTU /hr-ft-°F	0.17 W/m ² K
Specific Heat (Cp) per mass	0.43 BTU/(lb-°F)	1.80 kJ/(kg-°C)
Coef. Therm. Expansion (CTE)	33 x 10-6 in/in/°F	60 x 10-6 m/m/°C
Compressive Strength	9,700 psi	67 Mpa
Compressive Modulus	298 Ksi	2.05 Gpa
Service Temperature	356°F	180 °C



TYPICAL
MACHINING
CHIPS

➤ BENEFITS



High Toughness and Durability

With high toughness, machine downtime due to damaged plugs is reduced. Less downtime, lower costs, more consistent quality.



Material distribution

Reduce starting gauge and improve your thickness distribution



Superb Machinability

No dust collection equipment or respirators are required due to the large, non-abrasive chips. Plugs can be machined over three times faster than epoxy syntactic foam due to the easy chip formation.

No more complaints from your machinists.



Consistent quality

No spots, webbing and poor quality areas



Energy saving

Reduce heat temperature

