NEWTAC 104

> Material Description
The use of syntactic foam materials as plug assist tooling replacing conventional materials such as aluminium, wood, felt, or Delrin has become increasingly popular in the thermoforming industry. Syntactics, the combination of hollow glass microspheres in a polymer matrix, have many unique properties which make them ideal candidates for these applications.

> Low Thermal Conductivity and Specific Heat
This translates to low heat transfer reducing warm up time and virtually eliminating material sticking to the plug.

> Excellent Temperature Resistance
NEWTAC 104 is specially formulated with epoxy resin which maintains a high modulus at elevated temperatures.

> Easily Machined
NEWTAC 104 can be easily machined to any size or shape using conventional equipment

> Dimensionally Stable
The low coefficient of thermal expansion means the plug maintains its shape over a wide temperature range.

> Lightweight
This increases the life of capital equipment due to reduced wear and tear on moving parts.

> Variety of Shapes and Sizes
The material is provided in standard size rods or sheets, but may be custom moulded to meet your specific requirements.

> Applications
NEWTAC 104 maybe used in a wide variety of applications on sheet-feed, or in-line machines. It may also be used with most commonly thermoformed materials, as well as some of the more exotic materials available today. NEWTAC 104 may be used as a direct replacement for the other epoxy syntactic materials.

Properties	NEWTAC 104
Colour	white
Density (kg/m3)	610
Thermal conductivity	0.11 W/m.K
Specific Heat	1.76 kJ/kg.ºC
Coefficient of thermal expansion (CTE)	31 x 10^{-6} m/m/ºC
Compressive strength	42.7 MPa
Compressive modulus	1.57 GPa
Temperature	180ºC

New Metals & Chemicals Ltd.
Newmet House, Rue De St Lawrence, Waltham Abbey, Essex, EN9 1PF, UK
TEL: 44 (0) 1992 711111 FAX: 44 (0) 1992 768393 E-Mail: materials@newmet.co.uk Web: www.newmet.co.uk