



ZOTEK[®] N
HIGH PERFORMANCE
POLYAMIDE FOAMS

Taking
foam
technology
to a
new level



ZOTEFOAMS





ZOTEK® N

HIGH PERFORMANCE POLYAMIDE (NYLON) FOAMS

ZOTEK® N foams are available in sheet form and can be fabricated into simple and complex shapes using a variety of methods.

Features:

- Outstanding thermal resistance to 210°C
- Superior resistance to swelling by oils and fuels
- Low weight
- High strength and toughness
- Good chemical resistance
- Thermoformable

ZOTEK N B50 foam is the first product in the range of polyamide (nylon) block foams. Based on polyamide 6, it is a semi-rigid foam of density 50kg/m³, and is available in black.

THERMAL RESISTANCE

ZOTEK N foam has a significantly higher upper operating temperature limit than most common foams. The exact limit depends on the application and duration of exposure but thermal shrinkage is not significant (<5%) at 210°C over 24 hours.

Upper temperature limits for long term, continuous use of ZOTEK N grades will be far higher than those for polyethylene or polypropylene foams but their suitability should be determined for each individual application.

COMPRESSION PROPERTIES

ZOTEK N B50 foam has greater structural rigidity than low and medium density polyethylene foams and retains much higher rigidity at elevated temperatures and when dry.

MOISTURE ABSORPTION

All polyamides will absorb moisture reversibly from the environment. This greatly improves ductility and durability of the material but may marginally reduce the stiffness.

COMPRESSION SET

In seals and gasket applications, ZOTEK N foams will continue to perform at temperatures where other foams

collapse. When tested at room temperature, however, the compression set is inferior to many rubber and polyolefin foams.



FLAMMABILITY

ZOTEK N B50 foam meets the requirements of FMVSS 302. The burning characteristics of polyamide can be further improved by incorporating a flame retardant.

THERMAL INSULATION

ZOTEK N B50 is an excellent thermal insulation material both at high and low temperatures, with its closed cell structure acting as a barrier to condensation.

CHEMICAL RESISTANCE

The chemical resistance of polyamide 6 is very good against a range of chemicals, particularly hydrocarbons, such as oils and fuels, alcohols and ketones.

FABRICATION

Polyamide foam can be fabricated in a similar way to cross-linked polyethylene foam blocks. They can be thermoformed at temperatures around 250°C. Both thermal lamination and butt-welding are possible.

APPLICATION AREAS

ZOTEK N foams will find application in a range of high temperature seals, gaskets and insulation areas in the general industrial and automotive markets.

For additional current information on ZOTEK® N foams please visit www.nylonfoam.com



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