



ZOTEK® F

HIGH PERFORMANCE PVDF FOAMS

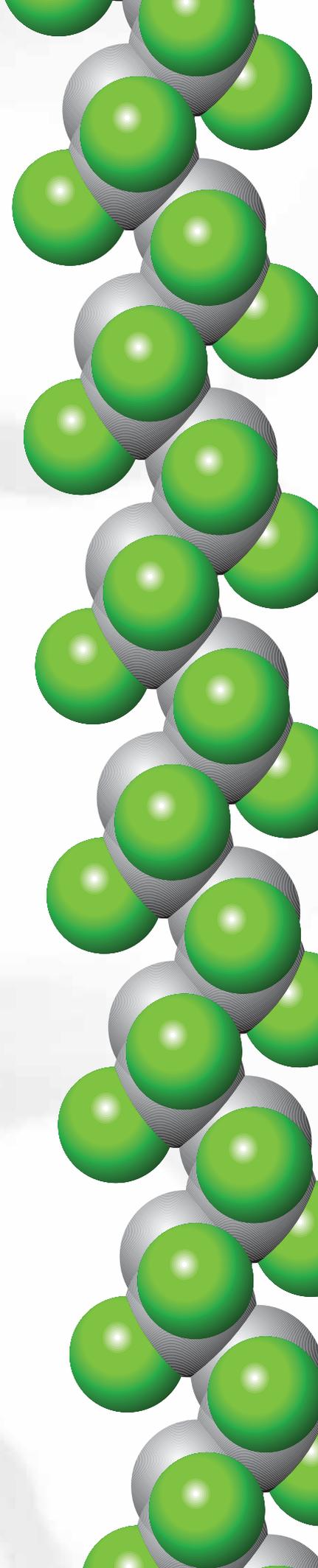
For Building and Construction



Taking
foam
technology
to a
new level



ZOTEFOAMS





ZOTEK® F

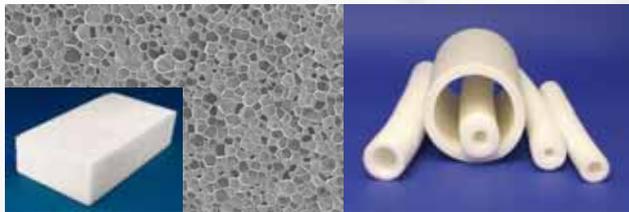
HIGH PERFORMANCE PVDF FOAMS

For Building and Construction



ZOTEK® F is a range of lightweight, closed cell foams based on Kynar® PVDF Fluoropolymer (poly vinylidene fluoride) with densities ranging from 30 kg/m³ upwards.

The combination of smoke and flame performance combined with its exceptional weathering resistance, due to its complete inertness to ultra violet radiation, makes ZOTEK F foam an ideal material for a range of critical sealing and insulating applications in building and construction.



FIRE SMOKE & TOXICITY CHARACTERISTICS

ZOTEK F foams are inherently non-combustible, low smoke, low heat release materials. A variant with exceptionally low smoke characteristics is also available designated ZOTEK F30 LS.

ZOTEK F30 meets the requirements of the major International test for Surface Burning Characteristics of Building Materials, UL 723 (ASTM E-84-01) Surface Burning Characteristics of Building Materials, with ZOTEK F30 LS having an outstanding Class A rating of 10/30#. A Euroclass B standard was achieved during indicative testing to the EU fire tests EN ISO 1195-2, the Single Flame Source Test, and EN 13823, the Single burning item (SBI) test.

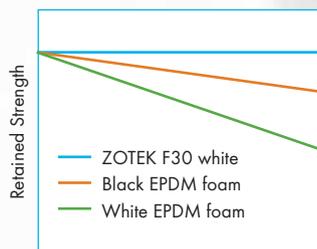
| Test Method ANSI/UL 723 (ASTM E84-01) | Calculated Flame Spread | Flame Spread Index | Calculated Smoke Developed | Smoke Developed Index |
|---|-------------------------------|--------------------------|----------------------------------|-----------------------------|
| ZOTEK F30 | 0 | 0 | 90.6 | 90 |
| ZOTEK F30 LS | 9.87 | 10 | 29.9 | 30** |

These tests are configuration specific. Indicative testing has been performed on a limited number of specific configurations

** A Smoke Developed Index under 50 for any foam material is difficult to achieve

UV RESISTANCE

Accelerated UV ageing tests have highlighted the performance benefits of ZOTEK F30 foam against other foams that are used for closure seals in construction applications.



Time exposed to UV light

LIGHT TRANSMISSION AND DIFFUSION

Translucent ZOTEK F combines outstanding thermal insulation with light transmission levels allowing diffuse light gently through. ZOTEK F is particularly suitable for use in atrium roof light and atrium day lighting systems. A range of cell sizes is possible allowing light diffusion to be tailored.

MOISTURE RESISTANCE

Many fire retardant foams are of open cell structure and must be used in combination

with other materials, either laminated or otherwise coated to prevent moisture ingress. Being closed cell ZOTEK F is highly resistant to moisture ingress and does not need to be hermetically sealed before use

CHEMICAL RESISTANCE

Kynar PVDF resin is a principal component in corrosion resistant piping systems, containment vessels, and filtration systems. These excellent chemical and barrier properties are also seen in the ZOTEK F foams. ZOTEK F exhibits outstanding resistance to a wide range of chemicals, acids, halogens and fuels.

LOW TOXICITY

Kynar PVDF, the base resin used for the manufacture of ZOTEK F foam, is FDA approved for repeated contact with food. ZOTEK F is foamed using pure nitrogen as a physical blowing agent and contains no pigments, fillers, light stabilizers or other additives making it ideal for use in applications that require this level of low toxicity performance.

EASY TO PROCESS

ZOTEK F foams are supplied in sheet form. They can be fabricated in the same manner as PE foam: adhesive backed and slit to form tapes, profile cut, sawn, laminated, butt welded and machined. ZOTEK F is particularly suitable for thermoforming into both simple and complex shapes. It can be readily bonded to other soft touch surface materials and can be used in high performance sandwich constructions.

APPLICATIONS VERSATILITY

ZOTEK F can be used in a wide variety of applications ranging from sealing materials for condensation control and weather stripping to filler blocks, gaskets, light fixture seals and eaves fillers. It can be thermoformed to make a variety of bespoke components such as chemical resistant pipe and valve insulation and can be profiled to make gaskets and low to medium closure force seals. ZOTEK F is also suitable for use as non-sink float material for level gauges used in aggressive fluids.