

## Materials

Plastazote®  
Evatote®  
Supazote®  
Propazote®  
Zotek® N  
Conductive/ESD foam  
Flame retardant Plastazote®  
Stratocell/Jiffy  
Anti-static Stratocell/Jiffy  
Expanded EPDM  
Expanded Neoprene  
Polyurethane foam  
Black Solid Rubber

## Applications

Construction  
Medical  
Sports  
Seals and gaskets  
Packaging  
Museums and Conservation  
Military  
Arts and crafts  
Materials handling  
Automotive

## Products

Sealblend eaves & ridge fillers  
Fire stop blocks and strip  
Sheets, strip and die-cut  
Static protection  
Shadowboards  
Polycord  
Cases and Boxes

### PLASTAZOTE® Foam

Closed cell cross-linked polyethylene foam. A wide range of polymer combinations is available to give increased stiffness, improved temperature resistance and improved mouldability. Application areas include packaging, protective padding in contact sports, automotive, health care and building. The inert qualities of PLASTAZOTE have led to its widespread use in healthcare applications.

### EVAZOTE® Foam

Closed cell cross-linked ethylene copolymer foam. EVAZOTE foams are tougher and more resilient than PLASTAZOTE foams and are mainly used in a wide range of sports & leisure and footwear applications. EVAZOTE foam is moulded into knee pads that are durable and resilient under repeated impact.



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PLASTAZOTE® • EVAZOTE®



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KISS CUT

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MOULDINGS

WASHERS

PRESSED

O-RINGS

EXTRUSIONS

FABRICATION

JET CUT

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TECHNIX RUBBER & PLASTICS

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# PLASTAZOTE®

# EVAZOTE®

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# applications

## MARINE

The closed cell nature of AZOTE foams make them ideal for many marine buoyancy applications as they cannot be deflated in a similar way to pneumatic structures. AZOTE foams offer an unrivalled combination of mechanical properties; strength, light weight.

### Construction materials

AZOTE foams are used in the manufacture of floating hoses for oil terminals and dredging. They are also used in the production of MOB (man overboard) boats used in off shore oil exploration and as buoyancy fillers in amphibious cars where their flame retardant nature is also invaluable. AZOTE foams are also used as the basis for ships upholstery that has buoyancy properties.

PLASTAZOTE is the lightest polyethylene foam available with densities down to 15kg / m3 making it particularly suitable for use as formers in the hull stiffening ribs and stringers of large FRP (fibre reinforced plastic) boats and other structures.

### Fenders

Fenders made from AZOTE foams will not sink if they become damaged. They provide high energy absorption with a low reaction force - properties that make them superior to pneumatic fenders.

### Buoys

Cylindrical buoys, anchor pendant buoys, navigation and marker buoys all benefit from the closed cell nature of AZOTE foams.

### Floats

AZOTE foam floats for umbilicals, ropes, cables, are exceptionally durable and easy to manufacture using conventional foam conversion techniques. Self-fendering booms have a myriad of applications from oil containment to the creation of exclusion zones at sea or in inland waterways. The puncture protection provided by AZOTE foams is highly valued in such applications.



## BUILDING & CONSTRUCTION

### AZOTE Polyolefin foams

AZOTE foams find many uses in building and construction for sealing and thermal insulation applications. They are used in the manufacture of eaves fillers where their lightweight, long life durability and sealing properties are paramount.

EVAZOTE closed-cell, cross-linked EVA foam is used extensively in the construction industry as expansion jointing material. It has an elastic working range of 60% compression, 30% tension and 120% shear and is unaffected by road salts and petroleum products (i.e. petrol, diesel fuel, oil and grease). It repels stones and debris otherwise absorbed by strip seals. When under compression, EVAZOTE closes upon itself, eliminating the possible extrusion of the material created by thermal contraction of the expansion joint.

EVAZOTE is ideal for use as the support for sports floors giving the floor the degree of elasticity or "give" that helps reduce the 'jarring' of limbs and joints during active sports. EVAZOTE combines the required compression stress characteristics with outstanding long-term resistance to compression set, making it ideal for this and many other similar applications.

AZOTE foams are also used as core materials for a variety of composite panels used flooring, temporary structures and temporary water defences where its light weight, durability and impact absorbing properties are beneficial.

### ZOTEK high performance foams

For ultra-high specification buildings and construction projects ZOTEK F is an ideal material, being unaffected by UV radiation and meeting stringent flammability specifications.

LD60 ▼

EV50 ▼

VA25 ▼

LD33 ▼

LD29 ▼

LD24 ▼

LD15 ▼

LD45 ▼

LD45 ▼

LD45 ▼

LD45 ▼

LD45 ▼

LD45 ▼

LD70 ▼

## AVIATION AND AEROSPACE

### Aviation and Aerospace

Both AZOTE, more specifically PLASTAZOTE, and ZOTEK F foams are used extensively in the aerospace civil, business and military aviation. They have closed cell structure, giving low water absorption and low water vapour permeability, excellent insulation characteristics and good durability, allowing both long life and flexibility when fabricating parts.

Being closed cell, ZOTEK F foams are being used increasingly to replace PVC Nitrile, Silicone and other foams, which are too heavy, don't meet the radiant panel test requirements or are open cell and can potentially absorb moisture.

Special flame retarded grades of PLASTAZOTE foams are able to meet the requirements of FAR/CS 25.853(a) App F Pt I. Additionally, ZOTEK F grades, being inherently non flammable, are able to meet the Radiant Heat Panel test FAR 25.856 (a) App F Pt VI and have low smoke density, low toxic gas emission and low heat release. The new ZOTEK F grades designated ZOTEK F HT offer an additional operational temperature limit of 160°C, an improvement of +50°C over the current ZOTEK F range. They also offer enhanced chemical and solvent resistance, combined with higher levels of structural rigidity.

All of these closed cell foams can be converted easily using traditional foam fabrication techniques such as sawing, routing, gluing, laminating, welding and die-cutting. They can also be thermoformed into complex single component structures providing many benefits over multi-layer foam systems, such as weight and cost reduction.

### Interiors

PLASTAZOTE foams are used in many seating and soft trim areas. The low-density closed cell nature of these foams allows significant weight reduction in seat cushions. Additionally, they are used to provide buoyancy or support in crucial areas of seat cushions, improving both comfort and durability.

PLASTAZOTE foams are used to provide soft touch and energy management around seating areas. These include foam-backed fabrics used around superior seating, seat armrests and crash pads on the rear of headrests

ZOTEK F foams show very low heat-release values, (a requirement for cabin interiors) and may be used in conjunction with other materials, such as leathers, that generally exhibit higher OSU values where 'average' results for material combinations need to be achieved.

### Galley

Applications for PLASTAZOTE and ZOTEK® F foams in the galley area are diverse. From compact crew seats and beds, to thermal insulation in ovens and refrigerators, through to kit boxes, these versatile foams can be fabricated to suit many applications.

### Airframe

ZOTEK F and PLASTAZOTE foams are used in many areas of the airframe, primarily as thermal and acoustic insulation and damping materials. Applications include ducting and water pipe insulation, water diverters and insulation of the cockpit, window reveals, and insulation pads for cargo deck and doors. The nature of these foams makes them easy to fabricate into intricate shapes. The excellent UV resistance of ZOTEK F also lends itself to applications where there is regular exposure to radiation, such as in the cockpit.

The synergistic combination of structure and insulating properties of ZOTEK® F 38HT and F 74 HT foams has provided engineers new flexibility and expanded the design envelope. Not only can they reduce the weight of the final part up to 30%, but they are also able to remove several manufacturing steps along the way, creating a more efficient process.

### Packaging

AZOTE foams have been widely used as transit packaging for many years and find application in both aerospace production areas, for tool control and part protection during transport, and on planes to produce safe compact storage for pieces of equipment such as defibrillator units.

More recently, ZOTEK F foams have found use as packaging where lightweight inherently flame retarded foams with high purity are required to protect high value components and equipment during transit in both aviation aerospace applications.

### Military

PLASTAZOTE and ZOTEK F foams are used in the manufacture of military airplane ejector seats, having light weight and excellent energy absorption. Other diverse applications include cavity fillers, to prevent water ingress, air ducting insulation and thermal & acoustic insulation in general. Further details can be found in our ZOTEK® F Aviation and Aerospace brochure

