

# technix

rubber and plastics ltd

## SOLUTIONS FOR YOUR SEALING REQUIREMENTS



Technical Help & Advice phone us FREE 0800 216633

## Stampings available in:

- Vulcanised fibre
- Natural rubber
- Synthetic rubber
- Leatheroid
- Nylon
- PTFE
- Leather
- Plastics
- CAF
- Non-asbestos jointings
- Polyester
- Nomex
- Engineering felts
- Cork
- Press papers
- SRBP
- SRBF
- Papers
- Foam

## Components available in:

- Nylon
- Acetal
- Vulcanised fibre
- PVC
- SRBP
- SRBF
- All types of electrical insulators

Technix was established in 1989 with technical staff who have over thirty years experience, and has grown to become one of the most innovative companies of its kind. We offer a cost effective and efficient solution to any elastomeric problem.

The company continues to invest heavily in the latest technology and in comprehensive staff training. Providing solutions for both domestic and commercial useage, our major markets include:

**Defence, Nuclear, Automotive, Packaging, Chemical, Material Handling, Building, Marine, Electrical, Shop Fitting, Transport, Air Conditioning, Food, Mining, Leisure (Travel and Tourism, Cruise, Marinas, Sports Facilities and teams, Leisure property, Spas, Higher Education, Food and Beverage, Gaming, Lodging), Agriculture, Medical, Acoustics, Retail, Health, and Government.**

The quality policy of Technix Rubber and Plastics Limited is to provide products and services which give total customer satisfaction.

We recognise that the continued future success of the company depends on the quality, price and delivery of our products. The quality of our products must be of the highest possible standard,if we are to meet the ever increasing levels set by our competitors and demanded by our customers. Our intention is to provide goods which meet our customer design criteria and requirements.

We supply to the UK and Abroad. Acoustic Foams, Air Filter Foams, Aquatic Filter, Foams, Packaging Foams.

seals

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shims

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o-rings

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gaskets

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mouldings

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extrusions

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packings

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washers

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fabrication

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kiss cut

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pressed

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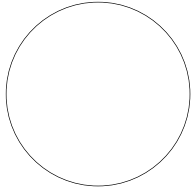
jet cut

••••••~•

On site advice to solve customer problems • Technical help to solve a special application • Interpreting the needs of you, the customer • Technical support through development and design of new products.



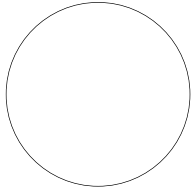
Contact our Sales Team: T. +44 (0) 1489 789944 F. +44 (0) 1489 798866 Email. [sales@technix-rubber.com](mailto:sales@technix-rubber.com)



### TR1

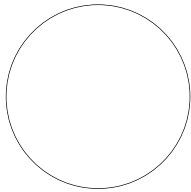
All applications as TR2 but with various reinforcement fabrics (insertion) including cotton, polyester and nylon materials

Also available polymer coated fabrics for diaphragm /gasket applications



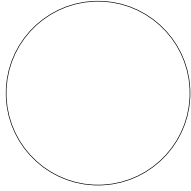
### TR2

**Material:** Solid press or rota cured rubber/synthetic polymers  
**Spec:** ASTM D2000 various grades including natural/SBR, neoprene, nitrile, EPDM, butyl, hypalon, silicone & viton®  
**Density:** Various types available BS,1154/2752/2751 grades  
**Temp:** Various to suit applications  
**Colours:** Various  
**Application:** Types available to suit almost every application for oil, chemical, waters and food applications



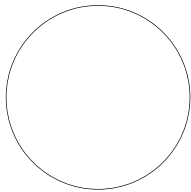
### TR3

**Material:** Reticulated filter foam  
**Spec:** Various flame retardant grades to FMVSS 302  
**Density:** 30 KG/M<sup>3</sup> 10ppi to 90ppi  
**Temp:** -30 to +100°C  
**Colours:** Black and White  
**Application:** Sheets, pads, strips & die cut parts for water and air filtration and pre-filtration for ventilation, air conditioning and automotive industries



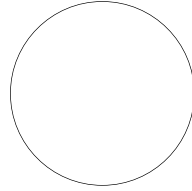
### TR4

**Material:** Bonded cork materials  
**Spec:** Various ASTM specifications - resin, neoprene, nitrile & silicone bonded cork materials  
**Temp:** Various  
**Application:** Weather, oil, petrol and heat resistant strips, gaskets, pads & die cut parts



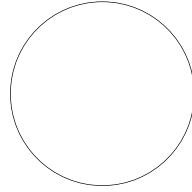
### TR5

**Material:** Expanded closed cell nitrile/PVC blend sponge  
**Spec:** ASTM D1056.77 SBE/SCE41/RE41 E1-BS476 class1+0 grades  
**Density:** 80/120 KG/M<sup>3</sup>  
**Temp:** -30 to +100°C  
**Colour:** Black  
**Application:** Weather, oil, heat resistant strips, gaskets, pads & die cut parts, good insulation/lagging quality



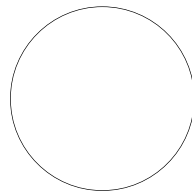
### TR6

**Material:** Closed cell expanded polyethylene-Trocellen®  
**Density:** Nominal 33 KG/M<sup>3</sup>  
**Temp:** -40 to +90°C  
**Colour:** Grey  
**Application:** Weather, oil, heat resistant strips, gaskets, pads & die cut parts, good insulation/lagging quality



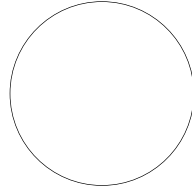
### TR7

**Material:** Closed cell expanded polyethylene-plastazote®  
**Spec:** TS10286 grade C UK/Aid/980 Type A  
**Density:** Nominal 45 KG/M<sup>3</sup> (other densities available)  
**Temp:** -70 to +110°C  
**Colours:** Black/White, also available blue/red/yellow/green  
**Application:** Weather, oil & ozone resistant strips, gaskets, pads, packing and die cut parts



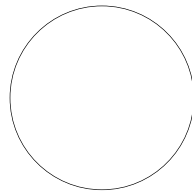
### TR8

**Material:** Expanded closed cell silicone sponge  
**Spec:** ASTM D1056 - /13  
**Density:** 250 KG/M<sup>3</sup> average  
**Temp:** -60 to +205°C  
**Colour:** White (others to special order)  
**Application:** High temperature heat, UV, ozone, electrical and water resistant strips, gaskets, pads & die cut parts



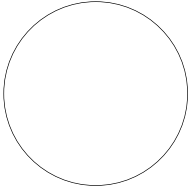
### TR9

**Material:** Non cross linked expanded polyethylene-jiffycel®  
**Density:** Nominal 35 KG/M<sup>3</sup>  
**Temp:** -40 to +70°C  
**Colour:** Black/White  
**Application:** A versatile foam for the packing industry, also has good buoyancy properties



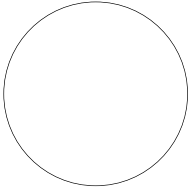
### TR10

**Material:** Expanded open cell treated Polyurethane foam Techsorb  
**Spec:** BS 476 Parts 6 & class '0' (fire rating)  
**Density:** 75 KG/M<sup>3</sup>  
**Colour:** Black  
**Application:** Sheets, strips, pads & die cut parts for acoustic sound absorption, thermal insulation, flame resistance for heating & ventilation, aviation, railway & marine industries. Foil, PVC, glass cloth & spray film facings available



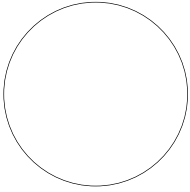
#### TR11

**Material:** Expanded closed cell neoprene sponge  
**Spec:** ASTM D1056 RE 42-/43  
**Density:** 140/169 KG/M<sup>3</sup>  
**Colour:** Black  
**Application:** Weather, med oil, heat resistant strips, gaskets, pads & die cut parts



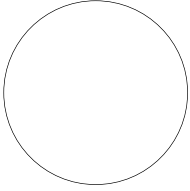
#### TR12

**Material:** Expanded open cell polyurethane foam  
**Spec:** BS 3667/BS4443/FMVSS 302 etc  
**Density:** Various 18-40 KG/M<sup>3</sup>  
**Temp:** -30 to +100°C  
**Colour:** Various  
**Application:** Dustproof strips, gaskets, pads, blocks & die cut parts, flame resistant grades, upholstery grades



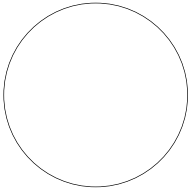
#### TR13

**Material:** Fine ribbed rubber matting  
**Spec:** Not applicable  
**Colour:** Black (other colours subject to a minimum)  
**Application:** Non slip flooring protection. Available in BS921 electrically tested grade



#### TR14

**Material:** Technical felt materials  
**Spec:** ASTM/SAE and MOD grades  
**Colours:** Black/white/grey  
**Application:** Oil resistant strips, gaskets, pads & die cut parts, roll/sheet felts, piano, polishing & display grades



#### TR15

**Material:** Expanded closed cell EPDM sponge  
**Spec:** ASTM D 1056 RE42 B2 CP  
**Density:** 130/150 KG/M<sup>3</sup>  
**Temp:** -40 to +100°C  
**Colours:** Black/White  
**Application:** Weather, ozone & heat resistant strips, gaskets, pads, die cut parts

The samples shown are a selection of our most popular materials. Many others are available on request

Normally all ex-stock  
24 hour service

Most of our products are available in Die Cut Shapes, Strip Gasketing, Plain or Self Adhesive backed.



- Handle prototypes to full production runs
- Machine one-of-a-kind or thousands of parts per run
- Produce both oversize and small components

# Elastomers - Types and Characteristics

## 1. Natural Rubber (NR)-Isoprene Synthetic (IR)

Natural rubber offers a good balance of properties, particularly for mechanical applications and can be compounded to produce high resilience, good tensile strength, low compression set and high tear properties over a wide range of hardnesses.

The abrasion resistance of natural rubber is good. It has better resilience, and maintains flexibility at lower temperatures better than most synthetics.

However, natural rubber is less resistant to ozone, petroleum oils and fluids than some synthetics. The operational temperature range of natural rubber is  $-40^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$ .

## 2. Styrene - Butadiene Rubber (SBR)

Styrene - butadiene rubbers possess properties similar to those of natural rubber. Temperatures range  $-40^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$ .

## 3. Ethylene Propylene Rubber (EPDM)

Ethylene Propylene Rubber has outstanding resistance to ageing, weathering, ozone, oxygen and many chemicals. It has high and low temperatures stability as well as steam and water resistance. It has a good resistance to glycol-ether hydraulic fluids but is not suitable for contact with petroleum liquids. Temperature range  $-40^{\circ}\text{C}$  to  $+120^{\circ}\text{C}$ .

## 4. Butyl Rubber (IIR)

Butyl has very low gas and moisture permeability and has excellent resistance to heat, ageing, weathering, ozone and chemical attack. It has good resistance to ester based hydraulic fluids and good electrical insulation properties. Butyl is not suitable for use with petroleum oils and fluids. The temperature range is  $-50^{\circ}\text{C}$  to  $+120^{\circ}\text{C}$ .

## 5. Chloroprene (CR)

Chloroprene, generically known as Neoprene, has more resistance than natural rubber to sunlight, ozone and oxidation. It has good resistance to heat and does not soften as natural rubber does under severe exposure. It has moderate oil resistance but is not suitable for use with petrol. It can be compounded to possess flame retardant properties.

Chloroprene is used on applications similar to those for natural rubber but where increased resistance to heat, ozone, weathering and oils is required. The temperature range is  $-20^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$ .

## 6. Acrylonitrile - Butadiene Rubber (NBR)

Generally known as Nitrile, it has excellent resistance to water, fuel and other petroleum products. It is superior to most elastomers in compression set, cold flow and abrasion resistance. It does not, however, possess good resistance to ozone, sunlight or weather. The temperature range is  $-20^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$ .

## 7. Chlorosulphonated Polythene Rubber (Hypalon CSM)

Hypalon rubber has excellent resistance to water, ozone, abrasion, flux, cracking, acids, and weather and also has good flame resistance properties. The temperature range is  $-20^{\circ}\text{C}$  to  $+120^{\circ}\text{C}$ .

## 8. Silicone Rubber (Q Group)

Silicone rubber has excellent resistance to temperature extremes. Temperatures as high as  $200^{\circ}\text{C}$  have little effect on the physical properties of this elastomer. However, it has poor tensile strength, tear abrasion and steam resistance. It has very good resistance to sunlight, ozone, oxygen, gases and possesses good electrical insulation properties, water repellency and non - adhesiveness. Temperatures range  $-100^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$ .

## 9. Polyurethane (AU)

Polyurethane elastomers have outstanding abrasion resistance at moderate temperatures. They have very high tensile strength, tear strength and load bearing capabilities. They are resistant to oils, certain solvents, greases, ozone, sunlight and weather. Resistance to acids and alkalis is poor. Temperatures range  $-40^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ .

## 10. Fluorinated Hydrocarbon (Viton FPM)

Viton has good resistance to most chemicals and commercial fluids. It has the ability to retain strength at elevated temperatures and to withstand embrittlement during long-term heat exposure. Temperature range  $-10^{\circ}\text{C}$  to  $+200^{\circ}\text{C}$ .

## 11. Thermoplastic Elastomers (TPE)

A series of materials now making inroads into a number of applications, including glazing, but as yet their physical properties are somewhat less than the conventional rubber polymers and therefore their selection should be made with care.

TPE materials are ideal for dual hardness profiles and are available in a wide range of colours. Good weather resistance, weldable for gasket manufacture. Moderate tensile strength and poor compression set and therefore do not meet BS4255 for glazing applications. Temperature range  $-40^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ .

## 12. Thermoplastic (PVC)

Flexible and rigid profiles available in a range of colours and dual hardness. Good weather resistance (including colours) and flexible at cold temperatures to  $-20^{\circ}\text{C}$  (when specifically compounded). Tendency to contact stain rigid PVC and also paint finishes.



## Production facilities



All the sheeting shown in this folder can be converted to gasket form to any shape to meet specific needs. As well as standard and automatic press cutting facilities, our experienced staff are fully competent in the hand cutting of special or complex shaped gaskets. This is an advantage when small quantity demands do not justify the expense of tooling. Other details of our production include:



**STRIP CUTTING** is also available in any quantity with or without adhesive backing.

**HOT VULCANISING** of fabricated sheets, tubes and profiles. Also scarf, butt and mitred joins.

**GRINDING** to produce strip profiles. Grinding to achieve material dimensions outside normal limitations.

**TREPANNING, DRILLING AND COUNTERBORING** are also used to achieve straight cutting of holes in all types of materials to avoid the concave effect common in press cutting.

**PRECISION ROTARY DIE CUTTING** Press capacity enables large volume quantities of self adhesive gaskets or washers to be produced in continuous roll form, 'kiss-cut' to the self adhesive release paper.

**LAMINATION FABRICATION** of expanded and solid rubbers, bonded and machined to any size.

## Product Range



We are able to offer fast production of the following products: Full faced or inside bolt circle gaskets to BS 3063 1965 to suit pipe flanges to BS10 tables D,E,F & H, BS 4504

NP16 ASA 150 etc. HATCH COVER SEALS, SLEEVES, BUFFERS, DIAPHRAGMS, DRAUGHT EXCLUDERS, SQUEEGEE RUBBERS, MAST COATS, PLOUGH BLADES, COUPLING DISCS, 'O' RINGS, PTFE ENVELOPES, SHIMS. PACKINGS & MOULDED RUBBER COMPONENTS.

## Sheetings

Normally supplied in standard rolls 10 Metres x 1.3 Metres. Cut lengths can be supplied to requirements. Thicknesses from 1mm upto 50mm. The following are the principle qualities of rubber that we supply:

**NATURAL:** Black commercial quality, Insertion, White food quality, Para shotblast BS 1154 range

**NEOPRENE:** Black commercial quality, Insertion, BS 2752 range

**NITRILE:** Black commercial quality, White food quality, BS 2751 range

EXPANDED FOAM & RUBBER, BUTYL, SILICONE, POLYURETHANE, EPDM, FELT, HYPALON, PTFE, VITON, FIBRE, OIL PAPER JOINTING, C.A.F., LEATHER, PVC, CORK, NYLON, FELT, DIAPHRAGM, NON ASBESTOS, GLASS FIBRE, CERAMIC FIBRE AND ALL TYPES OF PLASTICS.

## Extrusions & Mouldings

### Mouldings

We are able to offer a customer moulding service to customer specifications in a wide range of materials including Natural and synthetic compounds as well as most plastics. Small and medium production volumes are generally produced by compression and transfer moulding processes with injection moulding being used for large volume production. Many standard mouldings are available which include grommets, suckers, buffers, chair feet, door stops, bushes, sleeves, anti-vibration mounts.

### Extrusions

In our modern extrusion plant we produce rubber profiles in a variety of materials to suit the requirement. Uncured rubber is forced under heat and pressure through a precision die to produce the required section and the pre-cut lengths are then passed through a curing medium to achieve the finished profile.

## Other products & services

Fendering, Hose, Extrusions, Noise Insulation, Matting/Flooring

### Technix Rubber and Plastics Ltd

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www.technix-rubber.com

sales@technix-rubber.com



Most of our products are available in Die Cut Shapes, Strip Gasketing, Plain or Self Adhesive backed.