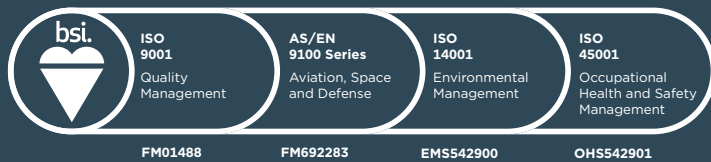


## EXCELLENT EMC SHIELDING AND ENVIRONMENTAL SEALING SOLUTIONS

Kemtron Ltd., now part of TE Connectivity, is a leading company in electromagnetic compatibility (EMC) shielding and environmental sealing since 1980 and works with blue chip customers in more than 35 countries around the world. We have developed a global reputation for quality, performance and reliability, with an enviable track record in demanding industries such as defense, aerospace, information technology, communications and electronics. We help customers meet their EMC shielding and environmental sealing requirements with innovative solutions that enhance product performance, reduce through-life costs and ensure regulatory conformance.

Our fully-equipped manufacturing and warehouse facility at Braintree in Essex United Kingdom has the flexibility to produce short-run bespoke solutions as well as standard products in volume. With in-house design, development, engineering and manufacturing capability, we maintain control over the entire production process to ensure the highest levels of quality and reliability.

Accredited to  
ISO EN 9100:2018, ISO 9001:2015,  
ISO 14001:2015 and ISO 45001:2018.



## EMC Solutions

Kemtron Ltd. has the knowledge, skills and resources to develop individual EMC solutions that match your exact requirements. This might take the form of custom-designed products or advice to your product development team on the design of enclosures and fixings to improve shielding performance.

If you are designing new products, we recommend bringing in our technical team at an early stage in the development process. We can provide advice on design requirements that will ensure optimum shielding when used with the right EMC product. We can also develop solutions for retrofitted EMC products to overcome operational problems, improve shielding performance, or meet changing regulatory requirements.

By working closely with many of the world's leading material producers, we can meet the demands of customers who want to meet ever-increasing performance criteria or ensure reliable operation in extreme climatic, environmental or operational conditions.



## Environmental Sealing Solutions

With over 30 years' experience in the environmental sealing industry, Kemtron Ltd. has the knowledge, skills and resources to develop individual tailored solutions for new or existing products that match your exact requirements.

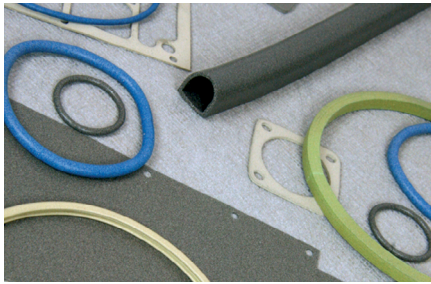
We can also provide advice on design requirements that will ensure optimum protection when used with the right gasket or seal. We look at a wide range of factors including compression forces, chemical resistance and flame resistance that will impact sealing performance through the life of your product and work with you to design a solution that balances performance, reliability and cost.

We are able to offer materials that have wide temperature ratings, long operational life, Ingress Protection sealing, resistance to fluids and Nuclear, Biological, Chemical (NBC), UL94 listings for fire retardancy and low toxicity products.



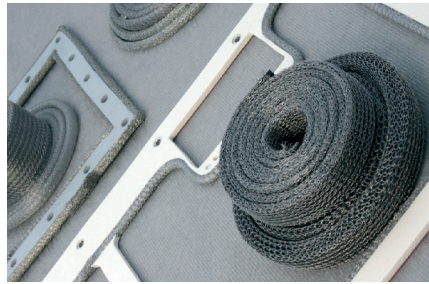
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## EMC Components & Gaskets



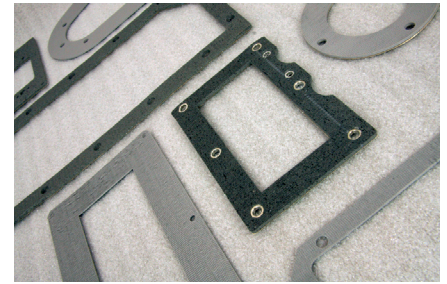
### Conductive Elastomers

Electrically conductive elastomers are made from silicone or fluorosilicone loaded with highly conductive particles such as silver plated aluminium, silver plated copper, nickel coated graphite and pure nickel. Available as extruded profiles, "O" rings, moulded components, and flat sheet for die cut gaskets. Conductive elastomers offer an excellent temperature range and are resistance to compression set and fluorosilicone has superior resistance to fuel oils and solvents.



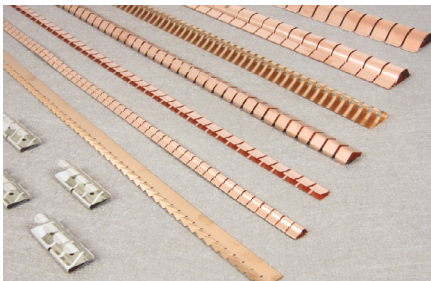
### Knitted Wire Mesh

Knitted wire mesh gaskets provide an excellent cost effective EMI gasket, providing shielding in the magnetic as well as electric fields. Kemtron knit in four wire types, Monel, stainless steel, aluminium and tin plated copper clad steel. Knitted mesh gaskets can be supplied as solid mesh or knitted over elastomeric cores with or without environmental seal in continuous lengths or fabricated to custom designs.



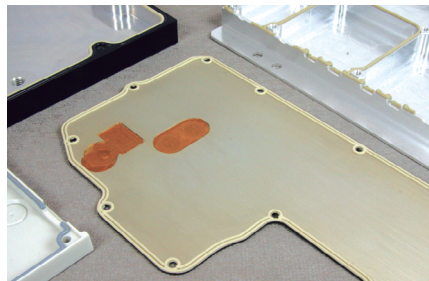
### Oriented Wires in Silicone

Solid and sponge silicone populated with vertically oriented monel or aluminium wires up to 140/sq cm. Provides excellent shielding with electromagnetic protection (EMP) survivability and will also provide an environmental seal. Available as sheet stock, strip or die cut to customer design and can be easily fabricated for large picture frame gaskets. Also available with self adhesive backing and compression stops or collars which can be fitted to prevent over compression.



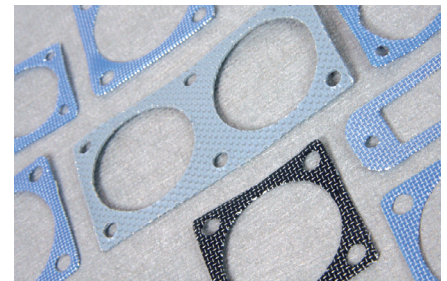
### Beryllium Copper Finger Stock

Beryllium copper EMI gaskets have superior mechanical spring characteristics and high electrical conductivity making them ideally suited to shielding applications where frequent access is required such as shielded room doors. These are available in profiles to suit most EMI shielding applications including grounding. Many plating finishes are available to address galvanic compatibility concerns and enhance shielding performance.



### Form in Place Gaskets

Conductive or non-conductive elastomer silicone compounds are deposited as a gasket directly to the enclosure for Computer Numerical Control (CNC) technology. These gaskets can be very intricate small sections suitable for enclosures with no space for a traditional gasket such as thin walled multi compartment housings providing an EMI and environmental seal.



### Connector Gaskets

Kemtron Ltd. has tooling for a wide range of standard MIL-Spec connector gaskets. Different materials are available to meet the demands of EMI shielding, environmental sealing, galvanic compatibility and fuel/oil resistance.



## Cable Shielding Jackets

Zip on type tubing with internal EMI shielding liner for shielding of bundled cables. Easy to open and close so cables can be added or removed. Tubing is available in many diameters and is suitable for static or flexible applications. Flame retardant and low smoke/low toxicity versions are also available.



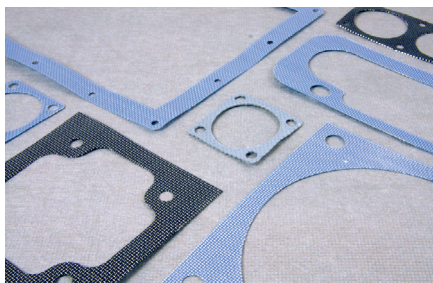
## EMI Shielding Cable Glands

Kemtron Ltd.'s cable entry gland provides an excellent EMI shield for screened cables which pass through enclosure walls. Made from brass, they are available to suit cables from 1.5mm diameter up to 16mm. They also provide traditional strain relief for the cable.



## Conductive Adhesives

Single component RTV (room temperature vulcanising) silicone electrically conductive adhesives are available with a range of fillers from silver to nickel coated graphite. These are designed to be used as a thin bond between two components, caulking compound can also be supplied for larger gap filling. Two component epoxy systems are also available.



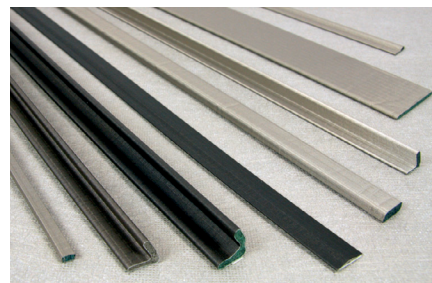
## Woven & Expanded Wire in Elastomers

Woven aluminium wire or expanded monel or aluminium sheet impregnated with silicone, fluorosilicone or synthetic rubber. Providing an excellent EMI and environmental seal, the metal reinforcement eliminates cold flow due to over compression. Available as sheet or die cut gaskets, particularly suitable for MIL connector gaskets.



## EMI Shielding Ventilation Panels

Kemtron Ltd.'s EMI shielding vent panels or attenuvents are made from aluminium or steel honeycomb mounted into a frame. Many aluminium frame styles are available together with different thicknesses and configurations of honeycomb to meet different shielding requirements. Protective grills are available for vulnerable areas together with dust filtration foams. Many plated or painted finishes can be specified.



## Conductive Fabric Over Foam Gaskets

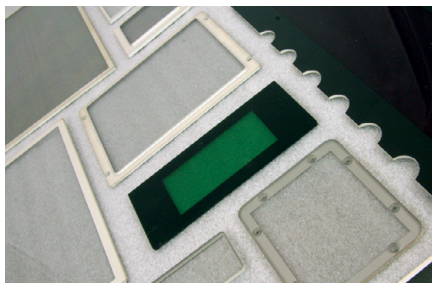
Highly conductive nickel/copper or silver plated polyester or nylon fabric over an open celled urethane core. Many profiles are available including rectangular, D shape and low compression/deflection C shape seals. These provide an excellent EMI gasket with low compression set and excellent abrasion resistance for high cycling and wiping applications. Most meet UL94V-0 and are available as strips, cut to length or die cut.





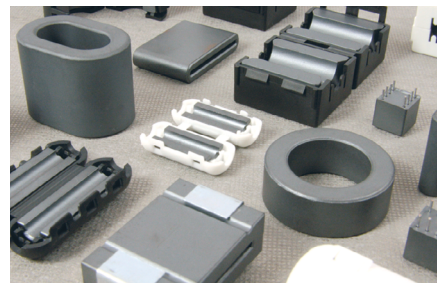
## Conductive Adhesive Tapes

Available in a range of electrically conductive foils with conductive adhesive which are suitable for permanent shielding solutions or temporary fixes for EMC testing purposes. These can be supplied as a continuous roll in various widths or as die cuts shapes for specific applications.



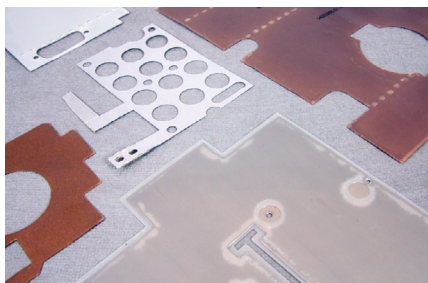
## EMI Shielded Windows

Windows for display devices or inspection panels providing optimum transparency and EMI shielding. These are made from fine stainless steel or copper wire mesh which are laminated or embedded within a range of optical substrates. They are made to order from small sizes up to architectural window size. Clear Indium Tin Oxide (ITO) coatings are also available.



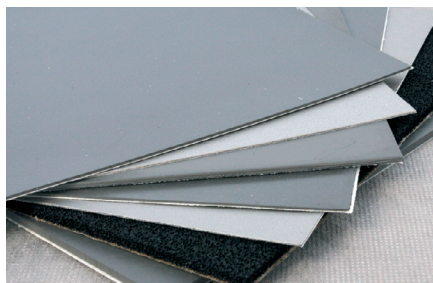
## Ferrites for EMI Suppression

Kemtron Ltd. stocks a wide range of ferrites for EMI suppression, including clip on cable cores suitable for retrofitting, cable cores for round and ribbon cables, and common mode chokes.



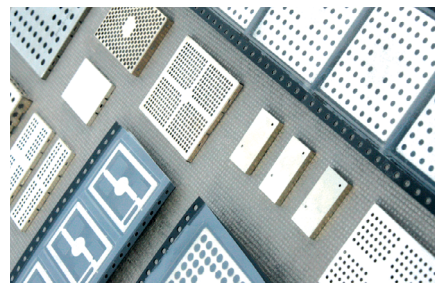
## EMI Shielding Laminates

Metal foils laminated to various non-conductive backings, which can be die cut to shape or scored and formed into a three dimensional shield. Laminates providing a cost effective light weight EMI shield provide that eliminate the need for conductive coatings on the inside of the enclosure.



## Microwave Absorber

Absorber materials are used for EMI isolation and RF absorption. They are available in different materials to provide absorption from as low as 5 MHz up to 40 GHz. Comprising materials such as loaded urethane, silicone, nitrile and neoprene, there are many choices available to provide products that can be characterised to provide absorption at single or multiple frequencies.

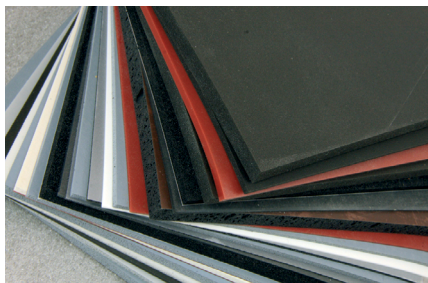


## Board Level Shielding Cans

PCB shielding cans provide effective isolation of board level components. Photo etching is the most cost effective production method and the custom made cans can be manufactured to incorporate a range of design features to suit individual applications. Our sales department should be contacted to discuss requirements.

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## Environmental Sealing



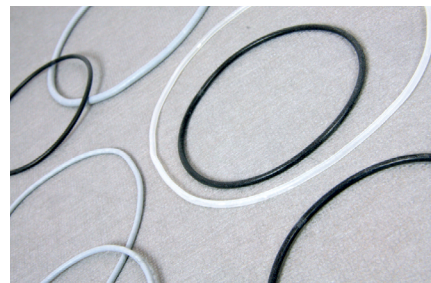
### Materials

Kemtron Ltd. stocks many types of elastomeric materials for flexible environmental sealing but specializes in silicones, fluorosilicones, solid and sponge that meet UL94V-0 and low smoke/ low toxicity. Other materials include Poron™ polyurethane, Neoprene/chloroprene, ethylene propylene diene monomer (EPDM) etc. Materials can be supplied as sheet, strip, laminated, self adhesive backed or die cut to complex shapes. Liquid RTV silicone can be applied as a form in place gasket direct.



### Flat Gaskets

Flat gaskets can be cut by rule die, kiss cut or more complex shapes by water jet cutting. Compression stops or collars can also be incorporated, leading to reduced hardware costs and negating the need for fixings to be torqued to prevent over compression and damage to the gasket. Self adhesive backing can be applied to the materials prior to cutting.



### “O” Rings

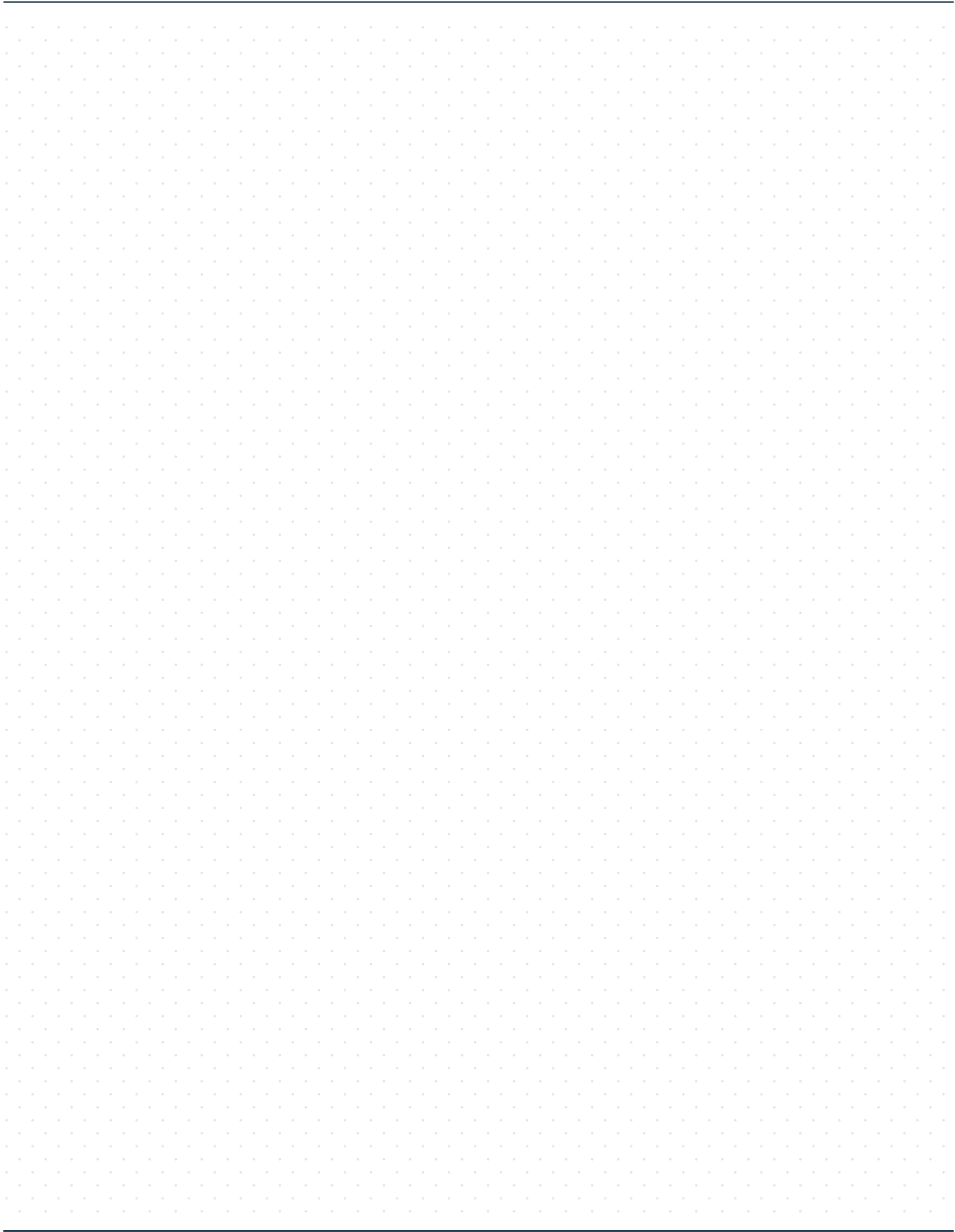
Kemtron Ltd. specialises in the manufacture of bespoke “O” rings specialising in silicones and fluorosilicones. Made from extruded sections cut to length and the two ends joined by vulcanisation to ensure a durable bond and maintaining the integrity of the seal. Sections and materials available are sponge, hollow tube, solid, D shape, rectangular etc. Rectangular picture frame gaskets with mitred corners can also be made in this way.



### Extrusions

Extruded profiles include cords, tubes, D shape, hollow D, P shape and bespoke profiles to special order. Flat strips can be extruded or slit from sheet. Materials include silicones, fluorosilicones, Poron urethane foams, EPDM, Neoprene etc. Extrusions can be supplied as continuous length or fabricated into “O” rings or more complex gaskets.





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For free application advice, additional technical information and to request a full catalogue please contact us directly.

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