



GETELEC

We protect your electronics

OUR SOLUTIONS FOR THE DEFENSE INDUSTRY



www.getelec.com



DEDICATED SUPPORT & EXPERT GUIDANCE

Understanding your requirements is central to our approach. Every project is built on close collaboration and a relationship of trust with our customers, throughout the product design and development process.

Our experienced teams support you at every stage, from defining technical requirements and selecting materials to manufacturing the final solution. This tailored approach ensures seamless integration, total reliability, and technological solutions designed for lasting performance.

TAILORED SOLUTIONS

Drawing on decades of expertise, Getelec develops high-performance, innovative solutions designed to meet the most demanding mechanical, electrical, and environmental requirements.

The close collaboration between our engineering department and Getelec Lab enables us to develop advanced solutions tailored to the standards and constraints of the defense industry.

From lightweight materials to fully customized developments, our R&D expertise turns complex technical requirements into effective solutions.

Through continuous innovation, we support your projects with solutions designed to deliver the highest levels of performance on the market.

About Us

Since 1968, Getelec has built recognized expertise as an independent French manufacturer specializing in EMC shielding solutions. Today, the company is a trusted partner to leading industrial groups across a broad range of sectors worldwide.

Getelec designs and manufactures customized solutions for environmental sealing, electromagnetic shielding (EMC), microwave absorption, and thermal management. Our products are engineered to protect high-tech equipment operating in demanding environments.

Through continuous technological innovation, Getelec develops advanced customized solutions designed to meet the complex specifications and cross-sector requirements of its customers.

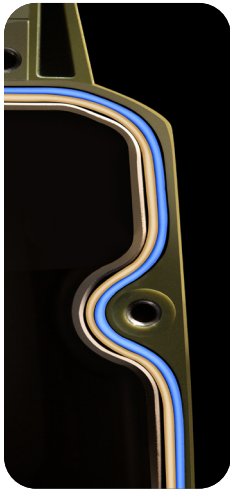
At Getelec, we share the ambition of building a more sustainable future. To achieve it, we continuously rethink our innovations, placing environmental responsibility and sustainability at the core of our development approach.

Our objective is clear: to combine high-performance solutions with a reduced environmental footprint. By integrating bio-based and recyclable materials into our products, we are helping shape the next generation of sustainable innovation.

Explore our product range:



CONDUCTIVE ELASTOMERS



CORROSION-RESISTANT DUAL-MATERIAL SOLUTIONS



ENVIRONMENTAL SEALING SOLUTIONS



MICROWAVE ABSORBERS



THERMALLY CONDUCTIVE PADS



Technical rigor, a passion for innovation and expertise
focused on anticipating your needs.

Innovation supporting defense operations.

In critical environments, electromagnetic compatibility (EMC) is not optional. It is a decisive factor in system reliability, operational safety, and mission superiority.

Getelec supports leading defense organizations in controlling the most demanding electromagnetic environments, including under extreme operating conditions.

Integrated from the earliest design phases, our EMC expertise ensures interference-free system performance, enabling armed forces to communicate, detect, decide, and operate without disruption.

Drawing on decades of expertise, **Getelec meets some of the aerospace and defense industry's most demanding standards and certification requirements, including MIL G 83528, TEMPEST, and DO-160.)**

Our dedicated engineering teams support you throughout every stage of your project. Equipped with state-of-the-art manufacturing technologies, our Yvelines production facility enables us to deliver exceptional product quality within short lead-times.



COMMAND, CONTROL, COMMUNICATIONS AND INFORMATION SYSTEMS (C3IS)

As electronic systems become increasingly concentrated within C3IS architectures, every command post presents major electromagnetic challenges. In environments saturated with tactical radios, satellite communications, and surveillance systems, even the slightest interference can compromise mission success. Our high-performance protection solutions preserve signal integrity and data accuracy, ensuring operational success and the reliability of the entire command chain.



TACTICAL EQUIPMENT

In dense and contested operational environments where reliable communications are mission-critical, Getelec provides advanced expertise in electromagnetic compatibility and shielding solutions. Our innovative technologies ensure the reliability of critical systems and the continuity of field communications, even under the most demanding operating conditions. By enhancing the robustness and electromagnetic discretion of your equipment, Getelec helps maintain your technological superiority.

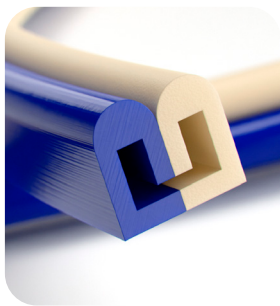


AEROSPACE & NAVAL DEFENSE

In the most demanding operational environments, where high-power radar systems, lightning exposure, and electronic warfare converge, electromagnetic compatibility is a strategic requirement. Getelec helps secure your operations and improve platform survivability by reducing electromagnetic signatures, enhancing both discretion and resilience.

COMMAND, CONTROL, COMMUNICATIONS AND INFORMATION SYSTEMS (C3IS)

MASTERING THE INVISIBLE SPECTRUM FOR SECURE COMMUNICATIONS

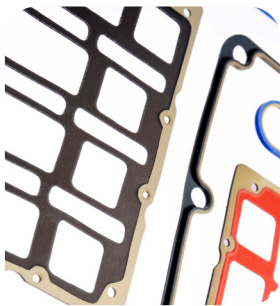


Our dual-material IP/EMC solutions

Our dual-material gaskets combine conductive and insulating elements within a single co-extruded profile. By separating the microwave shielding and environmental sealing functions, these solutions provide enhanced resistance to extreme operating conditions. Resistant to water, pressure, and corrosion, they deliver reliable environmental sealing and high-performance electromagnetic shielding, even in the harshest environments.

Advantages of our dual-material elastomers

- Combined IP/EMC protection
- Salt spray resistant
- Compact dimensions
- Custom engineered
- Extended service life compared with single-material solutions



GT5068 - A Unique Combination

GT 5068 combines conductive silicone with 65 Shore A silicone EPDM to deliver reliable performance in the most demanding environments. PFAS-free, it provides effective protection in corrosive environments exposed to water vapor. Its high resistance to fluids, low permeability, and excellent abrasion resistance make it an ideal solution for protecting sensitive equipment operating under extreme conditions.



GT 5068 Technical Overview

Conductive element		
Properties	Standards Tests	GT 5000
Type	MIL G 83528	B
Elastomer		Silicone
Filler		Silver-Plated Aluminum
Volume Resistivity (Ω -cm)	MIL G 83528	< 0.0054
Hardness (Shore A)	ASTM D2240	65
Density (g/cm ³)	ASTM D 792 Method A	1.90
Tensile Strength (MPa)	ASTM D412 Method AC	1.89
Elongation at break (%)	ASTM D412 Method AC	286
Tear strength (N/mm)	ASTM D624 Method C	8.43
Compression set, 70 hrs at 100°C (%)	ASTM D395 Method B	17.30
Operating temperature (°C)		-55°C to +160°C
Color		Beige

Insulating element		
Properties	Standards Tests	EPDM-Si
Density (g/cm ³)	ASTM D792	1.45
Hardness (Shore A)	ASTM D2240	65
Tear strength (N/mm)	ASTM D624 C	25.4
Tensile Strength (MPa)	ASTM D412	6.4
Elongation at break (%)	ASTM D412	486
Color		Black

AVAILABLE FORMATS

- Molded
- Die-cut
- Extruded
- Vulcanized bonding
- Sheet-form
- Adhesive-backed

TACTICAL EQUIPMENT

LOWER EMISSIONS, GREATER IMPACT



Our conductive elastomers

Our conductive elastomers are fully developed by our chemical engineering teams. From raw material selection through final processing, our engineers develop formulations tailored to each requirement and control every stage of the development process. The conductive particles used in our compounds, ranging from 10 to 40 microns and representing 60% to 80% filler content, deliver high-performance EMC shielding.

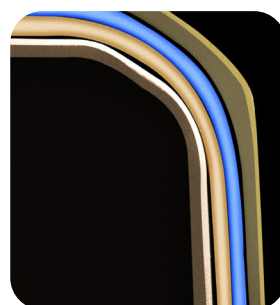
The three key advantages of our conductive elastomers:

- Electrical continuity
- Mechanical performance
- High-performance under extreme temperatures



Reinventing environmental sealing

Our extensive range of insulating silicone materials is designed to meet the most demanding environmental sealing requirements. Available in hardness levels from 20 to 90 Shore A and offering outstanding temperature resistance, our materials deliver **long-term durability and reliable performance, even in the harshest environments.**



From concept to production

Backed by extensive technical expertise and optimized production capabilities, we rapidly develop solutions tailored to your needs. From tooling design to high-volume extrusion, our end-to-end manufacturing expertise ensures **quality, performance, and precision across all finished parts and complex extruded profiles.**



The perfect combination of **durability** and **performance**

In demanding environments, components must combine performance, strength, durability, and efficiency.

That is why we have developed a range of high-performance sealing elastomers designed to meet the most complex technical challenges while ensuring **exceptional service life and premium-quality finishes.**

Drawing on our expertise in advanced extrusion technologies, we develop custom solutions for all types of geometries, including complex profiles, continuous lengths, and optimized lead times.

Key properties of our environmental sealing elastomers:

- UL94 HB and V0 flame-retardant silicone
- Chemical resistance
- Gas permeability and absorption (NBC protection)
- Excellent dielectric properties

AEROSPACE & NAVAL DEFENSE
INNOVATION FOR MISSION SUCCESS



GT602 R85

The GT602 range of absorbers delivers high-performance narrowband absorption together with excellent power density capabilities (>1 W/cm²). Thanks to its low outgassing properties, GT602 is ideally suited for aerospace applications.



Our thermally conductive pads

Developed by our R&D laboratory, our thermally conductive pads are available in four product ranges, with values from 1 W/m·K to 10 W/m·K. Their flexibility enables efficient contact with surface irregularities under compression, ensuring optimal equipment performance at both low and high temperatures.



Expertise that makes the difference

Our production facility is equipped with state-of-the-art manufacturing technologies. From prototyping to high-volume production, we maintain full control over all molding, cutting, extrusion, over-molding, and vulcanization processes, ensuring **premium quality finished products meeting the most stringent requirements**, delivered within optimized lead-times.



GT602 R85 Technical Overview

Getelec Reference	Thickness (mm)	Resonance frequency	Attenuation	ESA compliance
GT602 R85	2	6 GHz	28 dB	Yes
	1.8	7 GHz	27 dB	
	1.6	8 GHz	21 dB	
	1.5	9 GHz	27 dB	
	1.3	10 GHz	27 dB	

Available formats:

■ Die-cut ■ Sheet-form ■ With adhesive

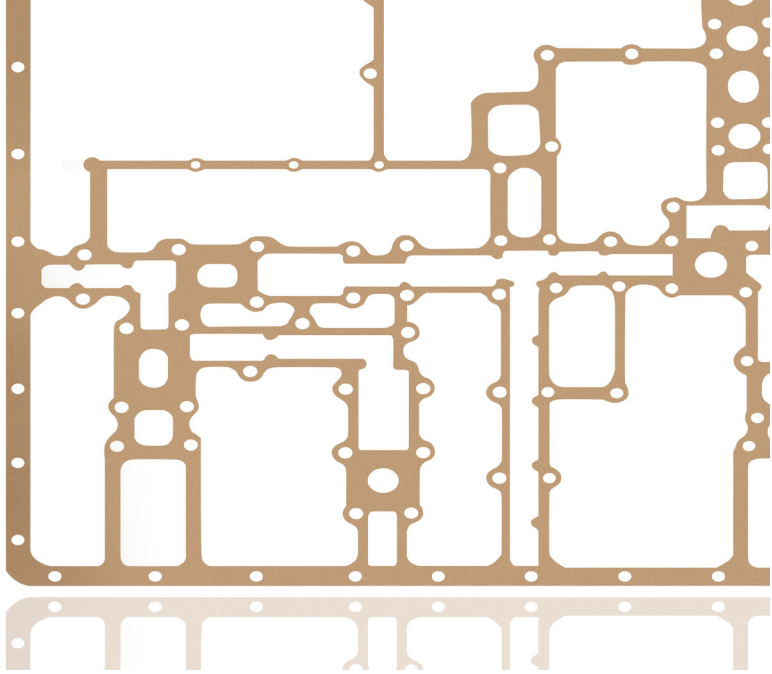
OUR CONDUCTIVE ELASTOMERS



Our conductive elastomers are fully developed by our chemical engineering teams. From raw material selection through final processing, our engineers develop formulations tailored to each requirement and control every stage of the development process. The conductive particles used in our compounds, ranging from 10 to 40 microns and representing 60% to 80% filler content, deliver high-performance EMC shielding.

Key advantages of our conductive elastomers:

- Electrical continuity
- Mechanical performance
- High-performance under extreme temperatures
- MIL G 83528 compliance
- **Excellent shielding effectiveness at very high frequencies (above 55 GHz)**



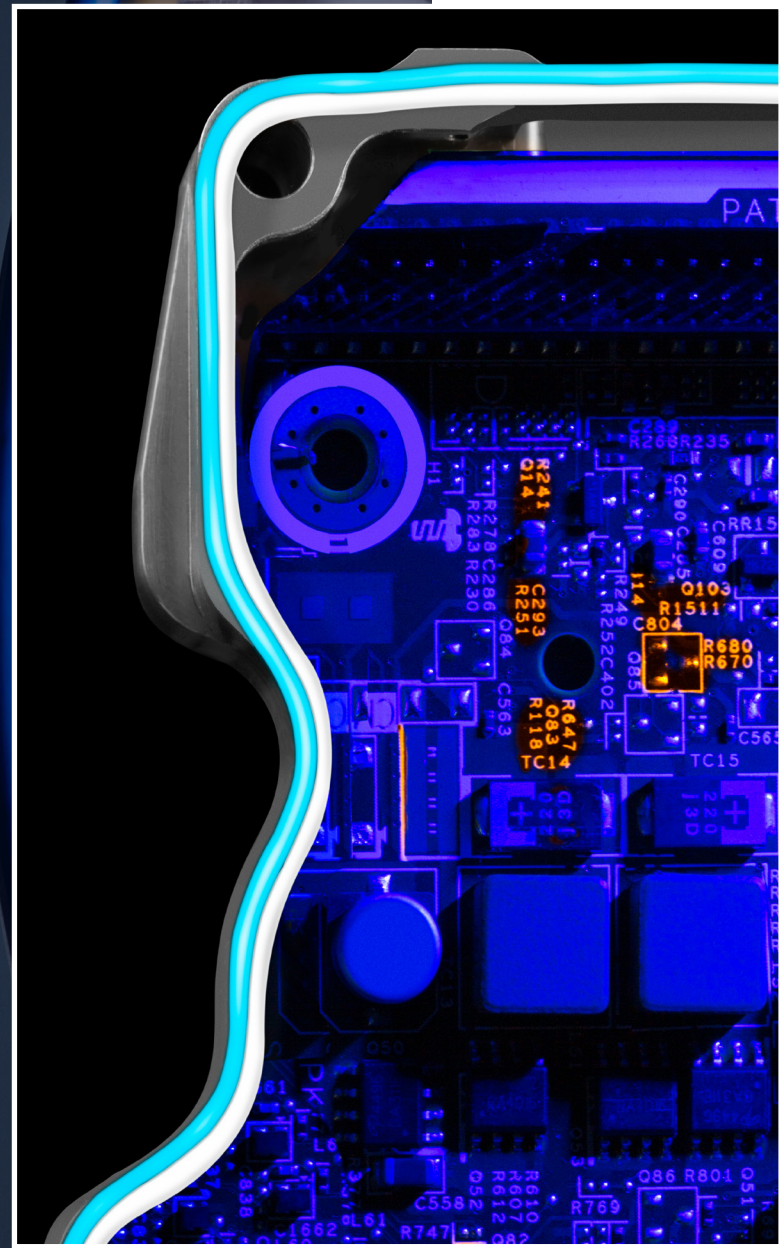
Properties Tests	GT 1000	GT 1000 FLEX	GT 5000	GT 5000 FLEX	GT 5007	GT 2027
Elastomer	Silicone	Silicone	Silicone	Silicone	Fluorosilicone	Fluorosilicone
Filler	Silver-Plated Copper	Silver-Plated Copper	Silver-Plated Aluminum	Silver-Plated Aluminum	Silver-Plated Aluminum	Pure Silver
Hardness (Shore A) [ASTM D2240]	82	40	65	30	71	75
Density (g/cm³) [ASTM D792 Method A]	3.40	2.67	1.90	1.67	2	4.30
Tensile Strength (MPa) [ASTM D412 Method AC]	2.80	0.81	1.89	1.02	1.85	3.30
Elongation at break (%) [ASTM D412 Method AC]	250	250	286	260	260	158.5
Tear strength (N/mm) [ASTM D624 C]	13.44	3.89	8.43	2.01	7.36	14.4
Compression set, 70 hrs at 100°C (%) [ASTM D395 Method B]	17.50	6.3	17.30	10.20	21	19
Continuous operating temperature (°C)	-55°C to +125°C	-55°C to +125°C	-55°C to +160°C	-55°C to +160°C	-55°C to +160°C	-55°C to +160°C
Shielding Effectiveness: 20 MHz 100 MHz 500 MHz 2 GHz 10 GHz	130 dB 140 dB 120 dB 120 dB 120 dB	66 dB 86 dB 100 dB 80 dB 87 dB	128 dB 137 dB 133 dB 122 dB 104 dB	79 dB 90 dB 104 dB 86 dB 106 dB	128 dB 137 dB 133 dB 122 dB 104 dB	125 dB 110 dB 110 dB 110 dB 110 dB
ESA-ECSS-Q-ST-70-02C Compliance [TML, RML(<1%) and CVCM (<0.1%)]	Compliant	Compliant	Non-Compliant	Compliant	Non-Compliant	Non-Compliant

Find our full range of conductive materials on our website.

Available Formats

Our expertise and customer support approach are also reflected in the careful consideration we give to your technical constraints and tolerances. All our solutions can therefore be custom-manufactured based on your drawings and specific production processes within short lead-times.

CORROSION-RESISTANT DUAL-MATERIAL ELASTOMERS

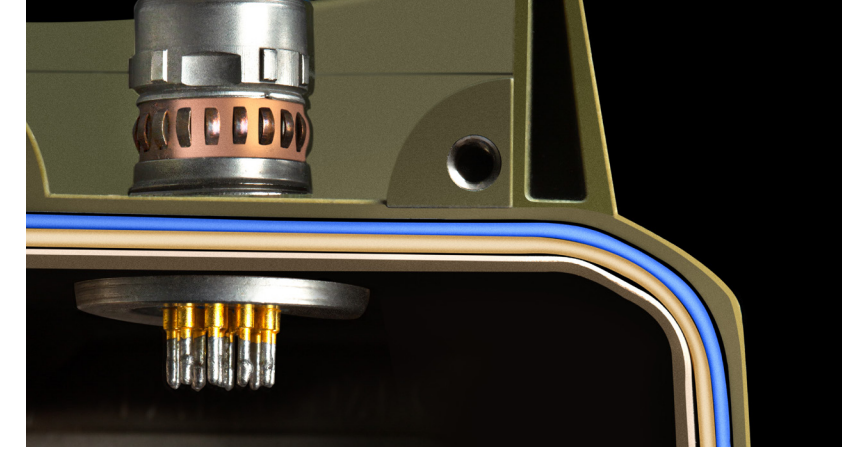


Our dual-material EMC gaskets are designed to prevent the corrosion issues commonly encountered when conductive gaskets are exposed to electrolytic agents, salt spray, and other aggressive environments. Our dual-material gaskets combine conductive and insulating elements within a single co-extruded profile. By separating the microwave shielding and environmental sealing functions, these solutions provide enhanced resistance to extreme operating conditions.

Key Functions of our Dual-Material Gaskets:

Resistant to water and pressure, our dual-material gaskets provide high-performance electromagnetic shielding together with reliable environmental sealing for your equipment.

Requiring only a single groove, these solutions simplify the machining of mechanical parts while optimizing space requirements.



Properties Conductive Element	GT 1060	GT 5040	GT 5047	GT 5060	GT 5067
Elastomer	Silicone	Silicone	Fluorosilicone	Silicone	Fluorosilicone
Filler	Silver-Plated Copper		Silver-Plated Aluminum		
Volume Resistivity (Ω-cm) [MIL G 83528]	< 0.005		< 0.0054		
Hardness (Shore A, ±7) [ASTM D2240]	82		65		
Density (g/cm³) [ASTM D792 Method A]	3.40		1.90		
Tensile Strength (MPa) [ASTM D412 Method AC]	2.20		1.89		
Elongation at break (%) [ASTM D412 Method AC]	250		286		
Tear strength (kg/cm) [ASTM D624 C]	13.70		8.60		
Compression set, 70 hrs at 100°C (%) [ASTM D395 Method B]	17.50		17.30		
Shielding Effectiveness: 20 MHz 100 MHz 500 MHz 2 GHz 10 GHz	130 dB 140 dB 120 dB 120 dB 120 dB		128 dB 137 dB 133 dB 122 dB 104 dB		
Continuous Operating Temperature (°C)	-55°C to +125°C		-55°C to +160°C		
Color	Beige		Beige		
Properties Insulating Element					
Density at 25°C [ASTM D792]	1.27	1.10	1.43	1.27	1.46
Hardness (Shore A, ±5) [ASTM D2240]	60	40	40	60	60
Tensile Strength psi MPa [ASTM D412]	950 6.55	100 6.80	1250 8.60	950 6.55	1200 8.30
Elongation (%) [ASTM D412]	300	500	400	300	300
Compression set, 22 hrs at 177°C (%) [ASTM D395 Method B]	33	30	20	33	25
Color	Blue	Orange	Blue	Blue	Light blue
Available Formats	Molded Extruded Die-Cut Vulcanized Bonding				

Find our full range of dual-material elastomers on our website.

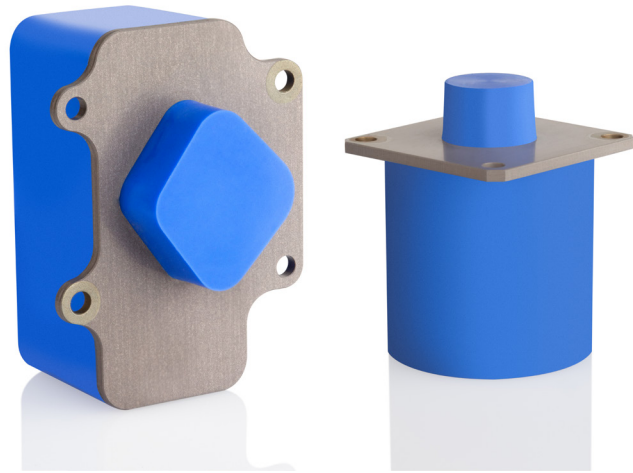
Advantages of our dual-material elastomers

- Combined IP/EMC protection
- Compact dimensions
- Custom engineered
- Extended service life compared with single-material solutions

OUR ENVIRONMENTAL SEALING MATERIALS



We offer a wide range of materials designed to provide reliable environmental sealing for electronic equipment exposed to severe chemical, mechanical, and environmental stresses. Using specially formulated silicone grades, we provide a complete range of silicone and fluorosilicone solutions with hardness levels ranging from 20 to 90 Shore A.



Key properties of our environmental sealing elastomers:

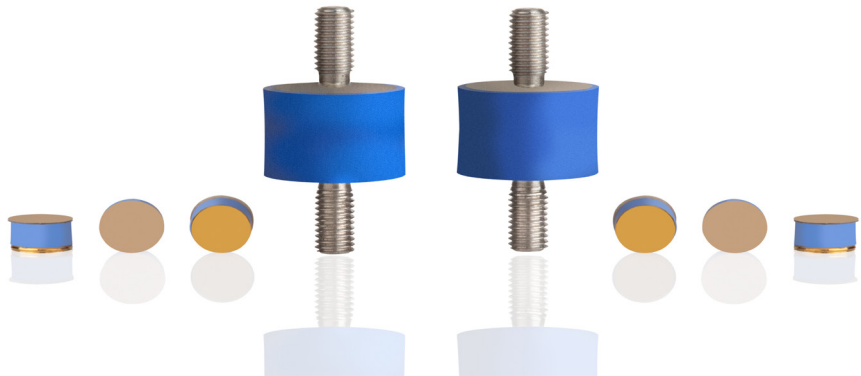
- UL94 HB and V0 flame-retardant silicone
- Aerospace-grade silicone
- **Continuous high-temperature resistance up to +360°C**
- Low outgassing properties (ASTM E595)
- Optional soft-touch and leather-effect finishes

Properties Tests	GT 40	GT 47	GT 57	GT 60	GT 67	GT 77
Elastomer	Silicone	Fluorosilicone	Fluorosilicone	Silicone	Fluorosilicone	Fluorosilicone
Hardness (Shore A, ±5) [ASTM D2240]	40	40	50	60	60	70
Density at 25°C (g/cm³) [ASTM D792]	1.10	1.43	1.44	1.27	1.46	1.48
Tensile Strength psi MPa [ASTM D412]	1000 6.80	1250 8.60	1200 8.45	950 6.55	1200 8.30	1250 8.60
Elongation (%) [ASTM D412]	500	400	350	300	300	300
Compression set, 22 hrs at 177°C (%) [ASTM D395 Method B]	30	20	25	33	25	25
Continuous Operating Temperature (°C)	-73°C to +232°C	-60°C to +230°C	-60°C to +230°C	-73°C to +232°C	-60°C to +230°C	-60°C to +230°C

Find our full range of environmental sealing materials and aerospace-grade compounds on our website.

Available Formats

Our expertise and customer support approach are also reflected in the careful consideration we give to your technical constraints and tolerances. All our solutions can therefore be custom-manufactured based on your drawings and specific production processes within short lead-times.



Our Range of Microwave Absorbers

Developed in-house by our R&D laboratory, Getelec Lab, our ESA-certified microwave absorbers deliver high-performance protection for advanced electronic equipment. Offering absorption levels greater than 20 dB and operating temperatures ranging from -160°C to +200°C, our microwave absorbers are fully compatible with the latest generation of electronic systems.

ATTENUATION GUIDE	
Attenuation	Absorption rate (%)
-5 dB	68.38%
-10 dB	90.00%
-15 dB	96.84%
-20 dB	99.00%
-40 dB	99.99%

Our Flexible Microwave Absorbers:

The microwave absorbers in our GT602 range deliver high-performance narrowband absorption together with excellent power density capabilities (>1 W/cm²), making them suited for antennas and high-power equipment. Thanks to their low outgassing properties, GT602 absorbers are also well suited for space applications.

Material reference	Band	Frequency range	Maximum attenuation
GT602 R90	L	1 - 2 GHz	-25 dB
GT602 R90	S	2 - 4 GHz	-30 dB
GT602 R85	C	4 - 8 GHz	-27 dB
GT602 R85	X	8 -12 GHz	-25 dB
GT602 R71	Ku	12 - 18 GHz	-23 dB
GT602 R65	K	18 - 27 GHz	-25 dB
GT602 R64	Ka	27 - 40 GHz	-25 dB

Polyurethane microwave absorbers

Properties	GT 501 PU
Hardness (Shore A)	80
Density (g/cm3)	3.9
Elongation at break (%)	200
Tensile Strength (MPa)	3
Tear strength (N/mm)	21
Operating temperature	-51°C to +135°C
Thickness (mm)	2.38
Flame retardancy	UL94 HB
Outgassing levels	TML: < 1.0% CVCM: < 0.10% WVR: 0.13%

Resin microwave absorbers

Properties	GT 501
Operating temperature	200°C
Moisture absorption	0.20%
Hardness	90 Shore A
Density	3.60 g/cm³
Magnetic permeability 2 GHz 6 GHz 10 GHz 12 GHz	1.85 H.m-1 1.55 H.m-1 1.24 H.m-1 1.30 H.m-1
Dielectric constant 2 GHz 6 GHz 10 GHz 12 GHz	9.50 pF.m-1 9.20 pF.m-1 9.00 pF.m-1 8.90 pF.m-1

Our thermal interface range

Fully developed by our R&D laboratory, our comprehensive range of thermally conductive pads includes more than fifty models across five distinct product families:

GTG range: includes approximately 30 products with thermal conductivity values ranging from 1 W/m·K to 10 W/m·K. The flexibility of our materials enables efficient contact with surface irregularities under compression, ensuring optimal equipment performance at both low and high operating temperatures.

GTS range: With low outgassing properties and compliance with ESA ECSS-Q-ST-70-02C requirements, our GTS thermal pads are designed for specific applications, including aerospace systems.

GTC range: Our silicone-free solutions are developed using specialized polymer formulations ideally suited to applications that require no release of silicone-based compounds, such as siloxanes.

GTD range: Available in cartridges from 180 cc to 900 cc, our GTD solutions are supplied ready for application.

GTR range: Thanks to their nylon reinforcement, our thermal pads can be manufactured in extremely thin formats.

GTG Range Overview

Product Range	Hardness (Shore 00)	Thermal conductivity (W/m.K)	Density (g/cm³)	Volume resistivity (Ω.m)	Dieletric constant (@ 1Mhz)	Dissipation factor (@ 1Mhz)	Operating temperatures (°C)
	ASTM D2240 Measured after 3 sec	ASTM D7984 MTPS (Modified Transient Plane Source)	ASTM D792	ASTM D257	ASTM D150	ASTM D150	
GTG 3 W/m.K	From 35 to 85 ±5	3 to 3.5	2.9 to 2.95	10 ¹¹	5.5	0.005	-40°C to +200°C
GTG 6 W/m.K	From 40 to 85 ±5	6	3.23	10 ¹¹	8.1	0.007	-40°C to +200°C
GTG 8 W/m.K	65 ±5	8	3.3	10 ¹¹	7	0.02	-40°C to +150°C
	80 ±5	8.6	3.02	10 ¹¹	8.1	0.014	-40°C to +150°C
GTG 10 W/m.K	50 ±5	10.01 ±0.2	3.44	10 ¹⁰	3	0.006	-40°C to +160°C

Find our full range of thermally conductive pads on our website.



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