



PRODUCT PROFILE:

GASKETS, RUBBER SEALS AND WEATHER STRIPS

INSIGHT FOR MANUFACTURERS ON SPECIFYING GASKETS, RUBBER SEALS AND WEATHER STRIPPING



FEATURED PRODUCT: GASKETS, RUBBER SEALS AND WEATHER STRIPPING

When it comes to enclosures, Allegis has spent years developing expertise on protecting compartments from exposure to the elements.

Allegis is the world expert in supplying access hardware that secures and protects enclosures for work and service vehicles, heavy equipment, HVAC, telecommunications and electrical cabinets, power generation and more.

No supplier offers as wide of a selection of gaskets, seals and weather stripping as Allegis Corporation. Bolstered by its in-depth knowledge of access hardware, Allegis works with manufacturers to find the best solution for designing and building doors, drawers, compartments and storage systems. If off-the-shelf components are not available, Allegis can develop a custom solution to meet any manufacturer's exact needs.



GASKET AND SEALING EXPERTISE

Gaskets, seals and weather stripping should not be overlooked when designing a new access product or component. The product selection, including the material, the density of the material, and the amount of compression required to create a secure fit, is a critical consideration to prevent air, dirt, and moisture from damaging the equipment and to create a more desirable user experience.

As a leading supplier of access hardware – handles, latches, hinges, seals, gas springs – Allegis understands how to identify the best gasket, seal or weather strip to enhance ease of access, security, and manufacturing efficiency. Allegis works closely with trusted gasket suppliers - leveraging relationships built over decades - to provide effective, cost-efficient solutions that allow manufacturers to create higher quality products that deliver more value to their customers.

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KNOW THE DIFFERENCE

What's the difference between a gasket, seal and weather stripping?

- **Gasket** – A gasket fills the space between two or more static surfaces. Gaskets help prevent leakage from outside sources while compressed.
- **Seals** – Seals are designed for multiple purposes, from keeping two materials joined, or preventing dangerous leaks. The seals are used to control intrusion of air, water, and dirt. In general, seals come in three different types: o-ring, rubber seal, and bearings.
- **Weather stripping** – Weather stripping is a seal designed specifically for exterior use. It keeps rainwater or melting snow, water, dust, dirt, or particles out of an interior environment, such as the cab of a truck, a power generation unit, or any enclosure.



FACTORS IN SELECTING THE GASKET, RUBBER SEAL OR WEATHER STRIPPING

When selecting gaskets, rubber seals and weather stripping for your next product, the engineering and design experts at Allegis recommend asking these questions:

Environmental Factors:

- What temperature range and exposure can be expected? Will your final product be exposed to extreme heat or extreme cold?
- Will your final product be exposed to acids or caustics, hydrocarbon solvents, or oxygenated solvents?
- Will your final product be exposed to ongoing sunlight?

Mechanical Factors:

- Will your final product need to meet an industrial specification such as UL, ASTM, SAE, NSF International or U.S. Military Standards?
- How tight of a seal is required – is an airtight seal required? The closing force requirements will determine whether the application calls for a sponge or dense material. With a low closing force, such as the door seal on a consumer product, a sponge material may be used. If two components in an industrial setting are being bolted together, then a dense material may be the best choice.
- How will the seal or gasket be attached? Will it be applied with an adhesive (glue) or a mechanical attachment (staples, clips, screws, etc.)?
- Will the seal or gasket interact with a channel? (For example, think about the inside edge of a door mating with a groove of the enclosure body).
- What type of materials will the gasket, seal or weather stripping be attached to, or bring together? (Example: steel, aluminum, plastic, carbon composite, wood, etc.).
- How do you want the end-user to experience the product on a day-to-day basis? Will the product be opened and closed frequently throughout its use?

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STATIC OR DYNAMIC APPLICATION

Allegis application engineers work closely with manufacturers to sort through available options and identify the best solution to create the best end-user experience. Gaskets, seals, and stripping come in a range of polymers that allow a manufacturer to meet a specific need while addressing hurdles such as extreme heat or consistent exposure to sunlight. Here is a quick list of the types of polymer materials available to manufacturers:

- **Silicone (polysiloxane)** – Excellent resistance to ozone, sunlight and oxidation. Good flexibility at lower temperatures, outstanding resistance to high heat, and very color stable. Not recommended where abrasion resistance is needed. Don't use near oil, gasoline, solvents, alkalis or acids.
- **EPDM (Ethylene-Propylene-Diene-Monomer)** – Excellent for outdoor use – strong resistance to ozone, weathering and aging, as well as water and stream resistance. Not recommended for resistance to oil, gasoline or hydrocarbon solvents.
- **Neoprene (polychloroprene)** – Moderate resistance to oils and gasoline. Good flame resistance. Weathers well and has good resistance to abrasion, flex cracking, alkalis, and acids. Good, all-purpose elastomer with a good balance of properties and few limitations.
- **Nitrile (acrylonitrile-butadiene)** – Very good oil and abrasion resistance to alkalis and acids. Poor resistance to oxygenated solvents. Superior to neoprene in oil and solvent resistance. Not recommended for outdoor applications; poor resistance to weathering.
- **PVC Nitrile** – Premium performance and long-term reliability in harsh and corrosive environments. Exceptional resistance to heat aging. Excellent choice for aerospace, automotive and industrial applications.
- **TPE (thermoplastic elastomers)** – Features the properties and performance of rubbers but processed like thermoplastics. Good flame resistance. Resistant to aliphatic and aromatic hydrocarbon solvents, including oil and gasoline.
- **PVC** – Excellent impact strength. Good resilience, tensile strength, abrasion resistance and maintains flexibility at lower temperatures. Not recommended for oil, gasoline or hydrocarbon solvents.
- **Polycarbonate** – Naturally transparent with ability to transmit light almost as if glass. High strength, toughness, heat resistance and excellent dimensional and color stability. Fair chemical resistance and not recommended for organic solvents.



ALLEGIS' INDUSTRY EXPERTISE

For more than 50 years, Allegis engineers have been serving manufacturers in more than a dozen industries where gaining access is absolutely critical. Based on our experience, we understand exactly what manufacturers face in designing a product for their customers. We specialize in the following industries:

- HVAC
- Construction
- Agriculture
- Enclosures and Storage Units
- Electrical Enclosures
- Telecommunications
- Power Generation
- Kiosks and Carts
- Transportation (trucks, buses, RVs, etc.)
- Heavy Equipment
- Powersports (snowmobiles, boats, ATVs, motorcycles, etc.)
- Work and service vehicles

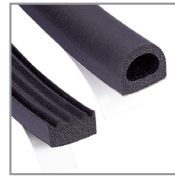
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TYPES OF GASKETS, RUBBER SEALS, AND TRIM OFFERED

TYPE OF SEAL, TRIM OR SPONGE	DESCRIPTION	TEMPERATURE RANGE
PVC Edge Trim	Flexible PVC trim, includes internal metal clips and gripping tongues for strong grip	-20 to 158 degrees F
Rubber Edge Trim	Available in EPDM or Neoprene. Butyl sealant, available for improved grip and excellent sealing	-40 to 225 degrees F
Trim Seal	Flexible PVC trim with bulb attached Secure predictable seal for gaps	-40 to 158 degrees F
Sealing Profile	EPDM soft rubber carrier with a bulb attached Secure predictable seal for gaps and sealing apps	-40 to 212 degrees F
Sponge Rubber or Rubber Seal	Custom formulate sponge rubber compound	-40 to 212 degrees F
Glazing Profile or Locking Gasket	EPDM dense rubber extrusion designed to create a locking seal	-40 to 212 degrees F



CUSTOM-DESIGNED GASKETS, RUBBER SEALS AND WEATHER STRIPPING COMPONENTS AND SYSTEMS

If standard gaskets, rubber seals or weather stripping don't meet your needs, Allegis has the engineering expertise and capability to design, prototype and manufacture custom gaskets, seals and weather stripping to make your product better. Our industry experts work closely with you to take the guesswork out of identifying the perfect solution among the hundreds of options available on the market.

ACCESS BETTER THINKING

Ready to begin your next project? For answers about industrial adhesive tapes and other access components, contact one of our application engineers. We combine better thinking with better products to deliver a peace of mind that comes only from knowing you have precisely the right components for the job. Only Allegis provides this high level of leadership, expertise, and project certainty. **You're not just buying access components. You're buying access to the best people in access components.**

CALL US AT 866.378.7550

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