

Cold Bonding for Custom Gaskets

Cost-Effective Low-Volume Joining without Tooling



What Is Cold Bonding?



Summary: Learn how to determine if cold bonding is the right joining or splicing technique for your custom gaskets.

Do you need a custom gasket that looks the corner of a picture frame?

L-shaped rubber gaskets require more than just dimensional accuracy. Application requirements and cutting techniques are important to consider, but so is the <u>splicing</u> method.

Gasket fabricators use different technologies to join cut lengths into corners, so it's important to consider all of your available options. In most gaskets designs, the corners are more susceptible to leaks than other parts of the seal.

Cold bonding is a joining method that offers important advantages, but it's not right for every sealing application. So how can you determine if cold-bonded gaskets are what you need?

For starters, let's define cold bonding and compare it to some "hot" splicing techniques. We'll also consider cold bonding in terms of application requirements such as performance and cost, and examine how <u>waterjet cutting</u> supports this cost-effective joining method. Finally, we'll look at gasket assembly.





Cold Bonding vs. Hot Splicing



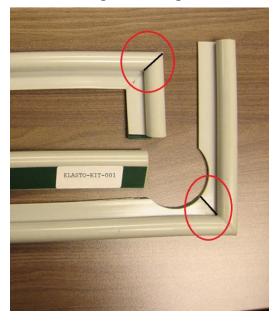
Cold bonding joins cut-lengths together with a glue that does not require the application of heat for curing or hardening. In other words, cold bonding occurs at ambient temperatures instead of at high-temperatures.

In indoor, climate-controlled environments, ambient temperature is generally the same as room temperature. With "hot" splicing, cut lengths of rubber are joined together in a heated mold, a type of tooling that's custom-made for the <u>rubber part</u>.

Cold bonding is less expensive than "hot" joining techniques because there are no tooling costs. Used mainly for low-volume applications, cold bonding can produce two-sided <u>profiles</u> and create precise, angled parts that are difficult to splice with other methods.

Although cold splicing can be used with corners that include odd angles, this joining technique is bestsuited for custom gaskets that won't be exposed to high temperatures or outdoor environments. Of course, not all seals face such conditions.

Gasket Cutting and Gluing Gaskets



Cold bonding is ideal for <u>miter corners</u>, a term that's familiar to woodworkers but also applicable to rubber gaskets.

Miter joints are formed by joining lengths with angled cuts so that they form a corner, usually a 90° angle. Often (but not always), each miter cut has a complementary angle of 45°.

Gasket fabricators use different cutting techniques, but water jet cutting creates fast, clean cuts that are easier to bond than the beveled edges produced with guillotine cutting, which uses a metal blade.





After cutting, cold-bonded gaskets are assembled by skilled production personnel.

For a gasket buyer, gluing cut lengths together on-site can be time-consuming and even result in material waste.

Although cold bonding does not require special tooling, the quality of hand-assembled parts matters.

That's why Elasto Proxy supplies coldbonded gaskets that are precision-cut with our water jet machine, glued by our

experienced personnel, and then shipped to you so that your custom gaskets are ready-to-install.

Do You Need Bonded Gaskets?

Bonded gaskets <u>speed production</u> by eliminating the need to tighten screws or perform time-consuming cutting and joining operations on your assembly line. Elasto Proxy can supply your gluing gaskets in limited quantities at first, and then increase deliveries as your production scales-up. We keep hundreds of rubber profiles in stock, and offer quick turn-around times to meet demanding production schedules.

Elasto Proxy's application knowledge and technical expertise also means that we can handle a variety of seal shapes and sizes, including custom bulb seals and D-seals. Our solutions providers can also help you to select rubber materials that meet your requirements for performance and cost.





How Can We Help You?



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