

BISCO® Silicones Shelf Life, Storage & Handling

Best practices for shelf life, storage, and handling of BISCO® silicones are critical in preserving product integrity. This Application Note will give you a few tips to help maintain product quality and ensure optimal material performance.

What is the shelf life of BISCO silicones?

The shelf life of silicone is important to know as it guarantees product performance, safety, and quality during that time period.

The shelf life of silicone depends on many factors, including whether the material was slit or laminated, how it was packed, and how it was stored (humidity and temperature control).



Shelf Life without Adhesive

BISCO materials show little to no physical degradation for long periods, making them a stable and reasonable material to stock.

If stored at the conditions noted, the shelf life for BISCO products without adhesive is 10 years from the date of manufacture.

The shelf life may vary once the material has been altered, such as if it is slit, laminated, or kept in extreme storage conditions.

What is the best way to store BISCO silicones without adhesive?

- Keep in original packaging
- Store in an environment of 60°F to 80°F (16°C to 27°C) and relative humidity of 40% to 75%
- Keep material out of direct sunlight

Shelf Life with Adhesive

BISCO materials with adhesive have a shorter shelf life when compared to no adhesive.

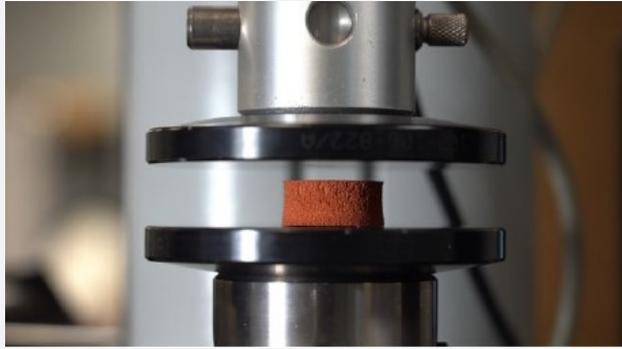
If stored at standard conditions, the shelf life for BISCO products is:

- 18 months for acrylic-based pressure sensitive adhesive from date of lamination
- 6 months for silicone-based pressure sensitive adhesive from date of lamination

Please note that adhesives are not manufactured by Rogers Corporation and have their own respective shelf life. Please consult with your Rogers Sales Engineer for more information.

What is the best way to store BISCO silicones with adhesive?

- Keep in original packaging
- Store in an environment of 50°F to 80°F (10°C to 27°C) and relative humidity of 40% to 60%
- Keep material out of direct sunlight



What happens if I have unused product that is past its shelf life?

If you have a product that is past its recommended shelf life, the material may be tested to verify the integrity of its physical properties, such as compressive force deflection, tensile strength, elongation, and compression set.

The suggested course of action is comparing the physical properties test result values to the values listed on the Technical Data Sheets. Depending on the application requirements and if no significant degradation of properties occurred, the material may still be utilized past its recommended shelf life date. Consult with a Sales Engineer to discuss test methods, results, and recommendations for your specific case.

Can I stack silicone foams, solids, or buns to take up less storage space?

Silicones should not be stacked directly, as this could cause a phenomena known as "blocking." Blocking can occur when the two surfaces are in contact.

BISCO® silicones come with either a PET liner on cellular foam materials or kraft paper on solid materials to prevent the materials from blocking. If the PET liner is removed and the is product stacked upon itself, the light friction between the surfaces may induce blocking, tearing the surface of the foam.

Rogers Corporation does not recommend stacking the material without an aid to prevent blocking, including the supplied PET, kraft paper or a talced surface.

Key Takeaways

- Ensure optimal silicone performance by adhering to its shelf life date and best storage practices.
- Using silicone past its shelf life date may result in the degradation of physical properties, so testing is recommended to verify the product integrity.
- Contact a Rogers Sales Engineer to review test methods/results, storage recommendations, or for any questions.