

SEALANT BEST PRACTICES

Sealants, which may be classified as elastomeric material with adhesive properties, are applied between building materials to provide a barrier against the environment. Sealants are designed to serve three basic functions: 1) improve the appearance of joints by filling gaps between substrates, 2) provide a barrier against water, moisture, dust, dirt, chemicals, noise, vibrations, and in some cases provide electrical or thermal insulation, and 3) maintain the seal for the expected lifetime, service conditions, and environments.

When selecting an application appropriate sealant technology, one should prioritize function and performance needs including: 1) type of material the sealant will be applied to, 2) joint dimension, 3) joint construction, and 4) the sealant's performance characteristics (i.e., joint movement capability). For additional support on selecting the right sealant for an application, read [Choosing A Construction Sealant Technology](#) or call 1-800-624-7767 for assistance.

To ensure proper installation, the following storage, preparation, and application fundamentals should be followed.

- **Building Material Storage.** Materials should always be protected from the elements, preferably stored off the ground in an enclosed building. Improper storage may lead to high moisture content, which could cause excessive joint movement, beyond the capability of adjacent materials. Always refer to the manufacturer for specific storage directions.
- **Sealant Storage.** Sealants should be stored in a cool, dry place. Overexposure to excessive temperatures and moisture may shorten shelf life and cause premature curing. Refer to technical data sheets for specific storage requirements of each sealant technology type.
- **Surface Preparation.** For best performance, surfaces should be clean, dry, and free of all contaminants, such as, old sealant/caulking, dust, grease, and any other material that will interfere with adhesion. Remove ice, snow, frost, or standing water prior to installation. Also ensure a proper drainage plane design to avoid trapped water or moisture.
- **Application.** Fully puncture cartridge seal and cut the nozzle tip with a sharp blade to ensure an application appropriate bead size (i.e., 3/8" for exterior applications) and at a 30° to 45° angle for best finishing results. Use steady pressure to force sealant into the joint ensuring adequate and even bond to both substrates and to avoid irregular bead shapes that are too small or too large. When terminating sealant beads, upon application completion or at the end of a cartridge, do not smear the bead onto adjacent surfaces. Instead, sever the bead and guide any excess sealant onto the existing bead.
- **Practice.** Fine-tune application techniques before working with installed materials.
- **DO NOT Tool, Use as Nail Hole Filler, or for Touch-Up.** Sealants should not be tooled, smeared, or feathered on prefinished colored claddings (i.e., siding, trim) as this will reduce its ability to withstand UV exposure and joint movement, causing premature joint failure and color fading. Sealants should NOT be used as a nail hole filler or in touch-up applications. Refer to cladding manufacturer instructions for proper nail hole filling and touch-up.
- **Clean Up.** Tools should be cleaned with appropriate solvents before sealant dries. Once cured, sealant may need to be cut or scraped away with mechanical means. Refer to sealant technical data sheets for specific instructions.

Combining the right sealant technology with proper application techniques will offer years of reliable joint protection. Henkel offers sealant technologies within its brand portfolios that meet a wide variety of application and performance needs. Go to ositough.com, loctiteproducts.com, gesealants.com, or lepage.ca to learn more about these solutions. For more best practice information, including color visuals and joint diagrams, refer to *Henkel's Best Practice Guide for Proper Installation of QUAD Max*. For additional industry detail, refer to ASTM C1193 – Standard Guide for Use of Joint Sealants.

DISCLAIMER The information and recommendations contained herein are based on our research and are believed to be accurate, but no warranty, express or implied, is made or should be inferred. Henkel recommends purchasers/users should test the products to determine acceptable quality and suitability for the intended use. All adhesive/sealant applications should be tested under simulated or actual end use conditions to ensure the adhesive/sealant meets or exceeds all required project specifications. Since assembly conditions may be critical to adhesive/sealant performance, it is also recommended that testing be performed on specimens assembled under simulated or actual production conditions.