

**BEST PRACTICE GUIDE FOR
PROPER INSTALLATION OF**

QUAD[®] MAX



QUAD[®] MAX
OSI
TOUGHER THAN THE ELEMENTS

WARNING: IRRITANT. Avoid contact with eyes, skin and clothing. Wash thoroughly with soap and water. For first aid, see back of container.
PREVENCIÓN: Evitar el contacto con los ojos, la piel y la ropa. Lavar abundantemente con agua y jabón. Para primeros auxilios, ver el reverso del envase.
0.5 fl oz (280 ml)
FOR PROFESSIONAL USE ONLY



INTRODUCTION

This Best Practice Guide was designed to teach the fundamentals of proper application, storage, and joint design of OSI QUAD® MAX sealant along with correct handling and storage of primary building materials used as part of the installation.

Adhering to the best practices outlined in this guide and referencing the technical data sheets will optimize the features of QUAD MAX and alleviate call backs to ensure a long lasting durable installation for the homeowner.



BEFORE THE INSTALLATION

PRIMARY BUILDING MATERIAL CONSIDERATIONS

BUILDING MATERIALS STORAGE

Pre-installation—all siding, trims, and other claddings must be protected from the elements at all times, preferably, in an enclosed building, with material stored, off the ground. Refer to manufacturer for specific storage details. A high moisture substrate can potentially cause joint movement beyond the capability of low quality primers that will tend to delaminate from boards causing failure at the joint. New and weathered wood must be clean and structurally sound. Any loose paint should be scraped away until structurally sound wood is reached. Any coating that cannot be removed must be tested to verify adhesion of the sealant. Refer to manufacturer's instructions for specific details on acceptable moisture levels for primed wood trim.



SEALANT STORAGE

QUAD® MAX should be stored in a cool, dry place. Over exposure of the sealant to moisture will cause curing of the sealant. QUAD MAX can be applied in temperatures ranging from 0°F to 140°F. When QUAD MAX is applied at temperatures below freezing, it is important to make sure that ice and frost are not present on the substrate.



SURFACE PREP

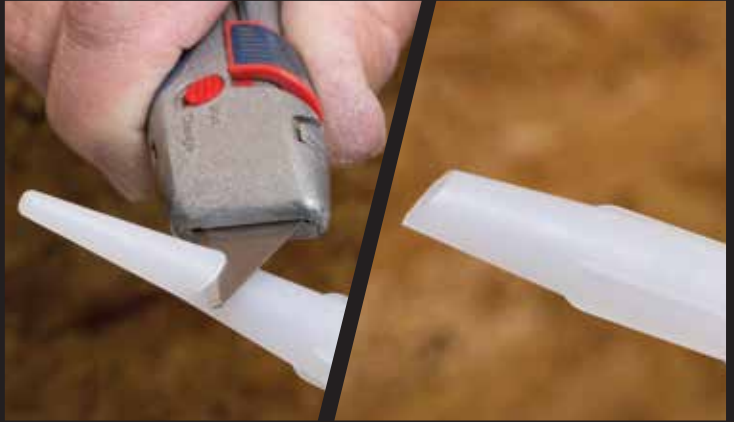
All surfaces should be clean, dry, and free of all contaminants, such as, old caulking, dust, grease, and any other material that can interfere with adhesion. Remove any ice, snow, or frost that may be present on substrates. For more information refer to cladding manufacturer's instructions for approved cleaning methods. Ensure proper drain plain design to avoid trapped water and or moisture. The combination of trapped moisture and other variables will tend to create back pressure and cause sealant bubbling regardless of technology.



SEALANT CONSIDERATIONS

APPLICATION

Use nozzle to fully puncture seal and cut the tip with a sharp blade to ensure a 3/8" bead and at a 30° to 45° angle for best finishing results. Use a high quality caulking gun. The sealant can be pushed or pulled when applying, but positive pressure should be maintained throughout extrusion. Use steady pressure to force sealant into joint to ensure an adequate and even bond of sealant to substrate and to maintain consistency to avoid irregular bead shapes, such as too small or too large. For more information, refer to ASTM C1193 – Standard Guide for Use of Joint Sealants. TIP: practice application techniques before working on installed materials.



TERMINATING OR ENDING A BEAD

When terminating a bead at the end of a joint, first release dispensing gun pressure to prevent run-on by pressing the release trigger, then use a twist and pinch motion at a sharp angle to sever the bead. In the event of excess string, guide onto existing bead. DO NOT pull or smear the bead onto adjacent surfaces like cladding or trim. DO NOT TOOL on prefinished colored claddings (i.e. siding, trim).

When terminating a bead that is to be continued (i.e. at the end of a tube), first release dispensing gun pressure to prevent run-on by pressing the release trigger. Next, pinch-off the bead by pressing the nozzle onto the joint surface. DO NOT smear bead onto adjacent surfaces. This action will create a slight smear inside the joint. Cover this smear with the start of the next bead.



DO NOT TOOL

DO NOT TOOL or smear/feather sealant on prefinished colored claddings (i.e. siding, trim), as this will reduce any sealant's ability to withstand UV exposure and joint movement, causing premature joint failure and color fading. To remedy sealant misapplication, allow the sealant to fully cure, then carefully remove by cutting out with utility knife before reapplying new sealant.

DO NOT USE AS NAIL HOLE FILLER

DO NOT use as a nail hole filler or in touch-up applications. Doing so will limit the sealant's ability to withstand UV exposure, and will result in fading or white out within six months. Follow prefinished cladding manufacturer's instructions for nail hole filling.



FADE TIME < 6 MONTHS

AFTER THE INSTALLATION

APPEARANCE

QUAD® MAX is a moisture cure non-shrinking sealant that will not change in appearance or shrink like other latex or solvent based sealants. Final cured bead will look the same as the freshly applied bead.



PAINTABILITY

QUAD® MAX can be painted one hour after application using a high quality exterior latex paint. In situations where less humidity is present it is important to wait until a skin has formed over the sealant before painting. In joints that have a high degree of movement capability, the paint can crack, distort, or delaminate from the substrate. The reason for this is simple: the paint does not have the flexibility of high movement/class 50 sealant, such as QUAD MAX. It is the responsibility of the applicator to conduct on-site testing to determine compatibility and adhesion. It is always recommended to use a color matched sealant.

Visit OSITough.com for complete color match listing.



CLEAN UP

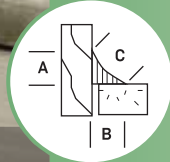
Clean tools with mineral spirits before sealant dries. Once cured, sealants must be cut or scraped away.

BEST PRACTICE

DURING SEALANT APPLICATION

FILLET JOINT

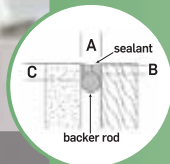
A fillet joint is formed when two surfaces come together to form a right angle. The sealant used to join these two surfaces is triangular in shape.



- Dimension A and B must be a minimum of $\frac{1}{4}$ "
- Apply a $\frac{3}{8}$ " bead with consistent positive pressure for optimal joint protection.
- Dimension C must be a minimum of $\frac{3}{8}$ "

CONTROL JOINT

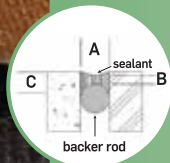
A control joint is formed when two similar or dissimilar materials meet or when substrates do not form a right angle. This joint will require both a backer rod and sealant for proper application.



- Dimension A must be a minimum of $\frac{3}{8}$ " or maximum of $\frac{5}{8}$ "
- Dimension B must be a minimum of $\frac{1}{4}$ " depth
- Dimension C can be a maximum of $\frac{1}{2}$ "
- Form bead to a concave shape. Use of a spatula, sized to joint width, and masking tape is recommended to prevent smearing sealant on adjacent surfaces.

DYNAMIC JOINT

Sealant joints that exhibit a high level of expansion & contraction due to fluctuation within substrate and building design.



- Dimension A must be a maximum width of $\frac{5}{8}$ "
- Dimension B must be $\frac{3}{8}$ " in depth
- Dimension C must be a maximum depth of $\frac{1}{2}$ "
- Form bead to a concave shape. Use of a spatula, sized to joint width, and masking tape is recommended to prevent smearing sealant on adjacent surfaces.

BEDDING BEAD

A bedding joint is a type of sealant joint that is parallel between two planes to bond & seal both surfaces together.



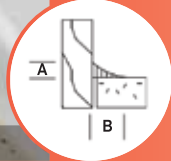
- Dimension A must be a $\frac{3}{8}$ " rounded sealant bead
- Apply sealant to substrate
- Minimize pressure when applying sealant to maintain a rounded bead

- Compress sealant between both substrates
- Avoid excessive substrate movement after compression. Movement of the substrate can smear the sealant & breakdown the sealants capacity to maintain a gasket seal

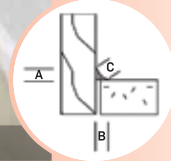
MISAPPLICATION

DURING SEALANT APPLICATION

UNRELIABLE FILLET JOINT: UNBALANCED BEAD & OVERTOOLED BEAD

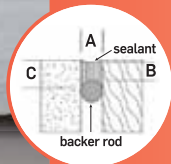


• Dimension A under $\frac{1}{4}$ " minimum. This will compromise the sealants adhesion performance and ability to sustain joint movement capability • Reduced sealant volume will diminish sealants ability to accommodate joint movement

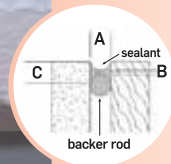
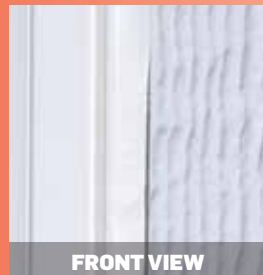


• Dimension A and B are covered by a thin layer of sealant. Overtooling reduced sealant volume necessary to accommodate joint movement
• Dimension C is under the standard $\frac{3}{8}$ " minimum

UNRELIABLE CONTROL JOINT: UNBALANCED BEAD & OVERTOOLED BEAD

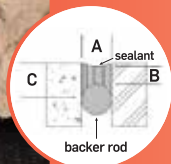


• Dimension C beyond standard maximum depth. This will debilitate joint movement capability causing fissures and fractures • Slow cure due to excessive sealant depth may compromise sealant performance • Dimension B beyond standard maximum depth

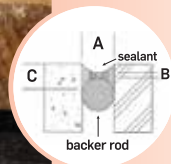
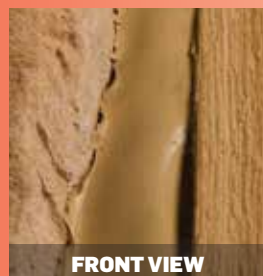


• Dimension A and C meet the required standard but overttooling reduced sealant volume necessary to accommodate joint movement causing separation • Dimension B below standard depth (shallow depth of this sealant will not provide optimum performance). Excessive sealant removed due to overttooling

UNRELIABLE DYNAMIC JOINT: UNBALANCED BEAD & OVERTOOLED BEAD

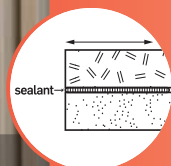


• Dimension C beyond standard maximum depth. This will debilitate joint movement capability causing fissures and fractures • Slow cure due to excessive sealant depth may compromise sealant performance • Dimension B beyond standard maximum depth



• Dimension A and C meet the required standard but overttooling reduced sealant volume necessary to accommodate joint movement causing separation • Dimension B below standard depth (shallow depth of this sealant will not provide optimum performance). Excessive sealant removed due to overttooling.

UNRELIABLE BEDDING BEAD



• Substrate movement will smear the sealant breaking down the capacity to maintain a gasket seal. This will leave insufficient amount of sealant to accommodate joint movement allowing for air and moisture infiltration

For more information, references and supporting technical documents call OSI Technical Customer Service at 800-624-7767 and visit **OSITough.com**

And for more learning opportunities and to get OSI Certified for the use of the QUAD® Window & Door System visit **OSITough.com/training**



CERTIFIED INSTALLER PROGRAM

**FOR THE USE OF THE QUAD®
WINDOW AND DOOR SYSTEM**



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