



# Den Braven Sealants bv

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## Zwaluw Silicone Structural Glazing Sealant 795-4000

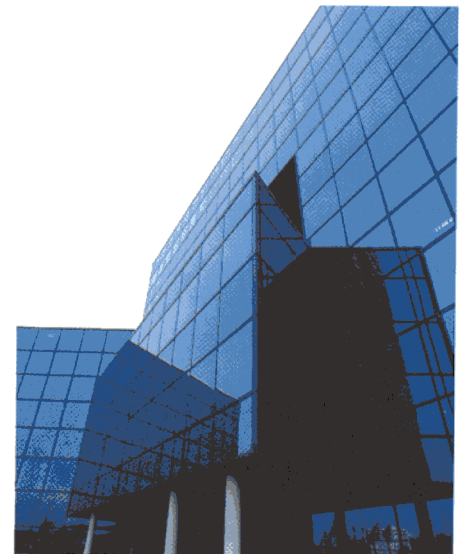
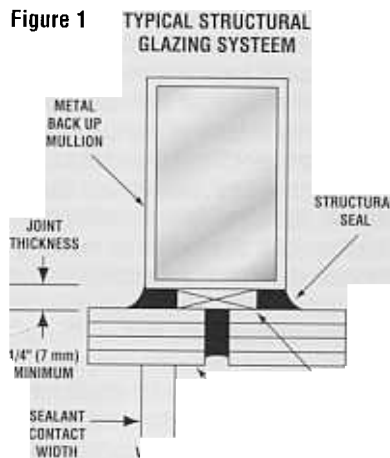
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Neutral curing system, acid-free

**Description** Zwaluw Silicone Structural Glazing Sealant 795-4000 is an one-component, high-strength neutral cure sealant specially designed and tested for structurally glazed curtain wall applications.

**Properties** High-strength structural sealant with primerless adhesion to many building substrates. Specific substrate testing required on all structurally glazed projects.

- Low odour.
- Long tooling time.
- Non-corrosive cure by-product.



### Form of Delivery

**Colour** Black only.

**Packaging** Cartridges 310ml.

**Shelf life** In unopened, original packaging at temperatures between +5°C and +25°C: „use before date“ stamped on cartridge.

**Applications** Zwaluw Silicone Structural Glazing Sealant 795-4000 is designed for use in structural glazing applications such as in shop or field glazing of curtain wall modules where glass lights are attached to the metal framing system with the structural sealant. This material can also be used as the weatherseal in glass-to-glass butt joints.

Applicable Standards Zwaluw Silicone 795-4000 meets or exceeds the requirements of the following specifications for one-part sealants. US Federal Specifications: \* TT-S-001543A (COM-NBS) \* TT-S-00230C (COM-NBS) \* ASTM C 920



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## Technical Data Zwaluw Silicone Structural Glazing Sealant 795-4000

<b>Character:</b>	Elastic
<b>Specific gravity:</b>	1,52
<b>Consistency:</b>	Thixotropic
<b>Tack free time:</b>	2½- 4 hours at 23°C and 50% R.H.
<b>Slump:</b>	0.1" max.
<b>Movement accommodation:</b>	Up to 50% Depending on joint dimensions
<b>Adhesion:</b>	Very good on glass, many plastics and metals
<b>Curing Time:</b>	5 - 7 days at 23°C and 50% R.H. for a 3/8" bead
<b>Paintability:</b>	Not paintable
<b>Hardness Shore A:</b>	Acc. to ISO 868-37°C
<b>Temperature resistance:</b>	Between -50°C and +120°C
<b>Modulus 100%:</b>	Acc. to ISO 37 - 1.2 MPa
<b>Elongation:</b>	Acc. to ISO 37 - 500%
<b>Tensile strength:</b>	Acc. to ISO 37 - 2.1 MPa
<b>Maintenance:</b>	With the same material

Values are not intended for use as specifications.

Zwaluw Silicone Structural Glazing Sealant 795-4000 exhibits excellent resistance to ultraviolet radiation, ozone, high and low temperatures and water vapor. It is compatible with many types of coated glass, metal finishes, glazing gaskets, setting blocks and spacers. Den Braven Sealants recommends to test on a project-by project basis each substrate and component used in a structural glazing assembly for adhesion and compatibility to assure optimum performance.

**Joint Design and Dimensions:** The design professional has the total responsibility for the determination of the structural sealant joint dimension based on design wind loads, glass sizes and anticipated thermal movement. Den Braven Sealants will not:

- \* Review and comment on architectural and shop drawings
- \* Confirm joint dimensions as meeting design criteria.
- \* Provide short term adhesion data in accordance with a modified ASTM C 794-80 test method.
- \* Perform compatibility test results on gaskets, spacers and setting blocks.
- \* Design sealant joint regarding wind loading or thermal movement.
- \* Provide comments on structural integrity of metal framing system.
- \* Provide long term performance data. A minimum joint thickness of 1/4" (7 mm) should be used in order to make certain sealant can be injected in the cavity, insuring full contact with the glass and metal surfaces while remaining free of air voids. Greater joint thickness may be required to accommodate movement. Sealant contact width will vary with the design wind load and glass size. See Figure 1 (Front page).

**Surface Preparation:** No sealant will maintain long-term adhesion to any substrate if the surface is not prepared and cleaned properly before the sealant is applied. Using proper materials as well as following prescribed surface preparation and cleaning procedures is vital for sealant adhesion.

- Materials:**
- \* Clean, fresh solvent as recommended by the structural silicone sealant manufacturer.
  - \* Clean, white cloths free of lint or approved wiping materials.
  - \* Clean, narrow-blade putty knife.
  - \* Adhesion promoter when required.





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**4.80****Surface Preparation Procedures/Cleaning:**

Remove all loose material (such as dirt and dust), plus any oil, frost or other contaminants from the substrates where structural silicone sealant adhesion is required. Clean the substrates receiving the sealant as follows:

- \* Do not use detergent to clean the substrates as residue may be left on the surface.
- \* Using a two-rag wipe technique: - Wet one rag with solvent and wipe the entire surface area with it, then - Use the second rag to wipe the wet solvent from the surface BEFORE it evaporates. Allowing solvent to dry on the surface without wiping with a second cloth negates the entire cleaning procedure because the contaminants are redeposited as the solvent dries.
- \* Do not spread the contaminants being removed by the solvent over the face of the area being cleaned. Any residue left may discolor or stain the face of the panels (such as metal or glass curtain walls).
- \* When cleaning deep, narrow joints, wrap the cleaning cloth around a clean, narrow-blade putty knife. This permits force to be applied to the surface to be cleaned.
- \* Clean only as much area as can be sealed in one hour. If cleaned areas are again exposed to rain or contaminants, the surface must be cleaned again.
- \* Change to clean rags frequently, as they become soiled. It is easy to see the soiling if white rags are used.

**On Using Solvents:**

Do not dip used wipe cloth into solvent. This only contaminates the solvent. Cleaning with contaminated solvent can result in sealant adhesion problems. Always use clean containers for solvent use and for solvent storage. Caution: Smoking, sparks, welding and flames of any type must not be permitted in the areas or the vicinity where solvents are being used. Follow all precautions on the solvent warning label.

**Adhesion Promoters:**

Both the nature of the substrate and the nature of the silicone sealant will determine whether and what type of adhesion promoter may be required in a particular application. When properly used, adhesion promoters help assure strong and consistent sealant adhesion to surfaces that may be difficult to bond. Most adhesion promoters are a blend of organic and inorganic chemicals, resins and solvents. NEVER APPLY ADHESION PROMOTOR TO GLASS SURFACES. Obtaining the proper materials, as well as following the prescribed procedures, is vital to ensure the successful use of adhesion promoters. ADHESION PROMOTERS ARE NOT TO BE SUBSTITUTED FOR GOOD SURFACE PREPARATION.

**Materials:**

- \* Pressure-sensitive masking tape if required
- \* Drop cloths
- \* Clean, fresh adhesion promoter as recommended by the structural silicone sealant manufacturer.

**Procedures:**

Here are easy steps to follow when using an adhesion promoter:

- \* Mask joint edges if necessary to prevent them being applied over the face of adjacent surfaces.
- \* Apply a thin film of adhesion promoter to the joint surface with either a natural bristle brush or a clean, lintfree cloth or other approved wiping materials. Do not puddle adhesion promoter in glazing pockets.
- \* Allow the adhesion promoter to dry before applying the sealant. Drying time depends on ambient conditions, but most adhesion promoters contain fast-evaporating solvents so that waiting time should be short (approximately 30 minutes).

**Caution:**

Adhesion promoters contain solvents. Smoking, sparks, welding and flames of any type must not be permitted in the areas or the vicinity where solvents are being used.

**Masking:**

- \* Before applying the structural silicone sealant, use pressure-sensitive tape to mask the exterior face of the joint where necessary. Start from the top down and overlap the runs.
- \* Use drop cloth to cover any horizontal surfaces likely to receive any excess sealant removed during tooling operations.



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- Structural Silicone Sealant Application:** The sealant should be applied carefully and according to the written instructions on the container.
- \* Apply the sealant by pushing the bead ahead of the nozzle and making sure that the entire cavity is filled. AIR POCKETS OR VOIDS ALONG THE EDGES ARE NOT ACCEPTABLE.
  - \* Tooling should be done neatly, forcing the sealant into contact with the sides of the joint, thus helping to eliminate any internal voids and assuring good substrate contact.
  - \* Do not tool with water, soap or detergent solutions.
- Method of Application:** Zwaluw Silicone Structural Glazing Sealant 795-4000 can be dispensed directly from 310 ml cartridges.
- Precautions:** Material Safety Data Sheets are available upon request from Den Braven Sealants B.V. When solvents are used, proper safety precautions must be observed. All solvents must be used only in well ventilated areas. Exposure to high vapor concentrations must be avoided. When flammable solvents are used, storage, mixing and use must be in areas away from heat, sparks, flame or other sources of ignition.
- Storage Warranty:** Zwaluw Silicone Structural Glazing Sealant 795-4000 should be stored in sealed containers at temperatures at or below 80°F (27°C). Refer to the „Use Before Date“ on the packaging carton. In cases where the shelf life has been exceeded, the local Den Braven Sealants B.V. representative should be contacted for further information, prior to the intended use of this material.
- Limited Warranty:** Den Braven Sealants B.V. warrants that its product will conform to Den Braven Sealants B.V. specifications at the time of application or use. The product must be stored in accordance with Den Braven Sealants B.V. recommendations, and used or applied before the earliest of (1) the indicated „Use Before Date“, (2) one year from date of purchase, or (3) expiration of such other period or recommended storage time stated in the Den Braven Sealants B.V. product literature. If notified, in writing, of a claim within six months of the product's use or application, Den Braven Sealants B.V. will, at its option, replace or refund the purchase price of any Den Braven Sealants product which does not satisfy the foregoing warranty.
- THE FOREGOING SHALL CONSTITUTE THE SOLE AND EXCLUSIVE REMEDY FOR DEFECTS OR FAILURE OF THE PRODUCT, AND THE SOLE AND EXCLUSIVE LIABILITY OF DEN BRAVEN THE WARRANTIES STATED ABOVE ARE IN LIEU OF ALL OTHER WARRANTIES, WRITTEN OR ORAL, STATUTORY, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE.
- Limitation of liability:** Den Braven Sealants shall, in no event, whether the claim is based on warranty, contract, tort, strict liability, negligence or otherwise, be liable for incidental or consequential damages, or for any damages in excess of the amount of the purchase price.
- Maintenance:** No maintenance is needed. If silicone sealant becomes damaged, replace damaged portion. Clean surfaces in damaged area repair with fresh silicone sealant.
- Technical Services:** Any technical advice furnished by Den Braven Sealants B.V. or any representative of Den Braven Sealants concerning any use or application of any sealant is believed to be reliable but Den Braven Sealants B.V. makes no warranty, express or implied, of any use or application for which such advice is furnished.