TDS

KCC KORESEAL

Technical Data Sheet _ Structural Glazing Sealant

SL820(E)

Feature
- 2-Component silicone sealant
- Meets ASTM C 1184
- Neutral cure

Benefit
- Excellent workability (2-part dispensing equipment)
- Excellent ultimate tensile strength
- Excellent weatherability
- Stable viscosity
- Fast curing time

Main Ingredients
- Silicone Polymer

1. Introduction

KORESEAL SL820(E) is a neutral cure silicone sealant designed for structural glazing units used in curtain-wall construction.

2. Application

Structural Sealant Glazing(SSG) for curtain-wall construction

3. Main Properties

* 2-COMPONENT (Fast cure)
* Good Adhesion to most substrates
* Good mechanical properties and weatherability for SSG application

4. Properties

(Tested at 23 ℃, 50 % relative humidity)

Property	Unit	Result
Binder	-	Silicone Polymer
Curing System	-	Neutral cure
Color	-	Base (white), Curing agent (black)
Consistency	-	Base (soft paste), Curing agent (viscous liquid)
Mixing Ratio (by volume)	Base : Curing agent	9 : 1
Pot Life	min	20 ~ 60
Specific Gravity		Base : 1.46 ±0.1 Curing agent : 1.02 ±0.1
Hardness	Shore A	35 ~ 45
Tensile Strength (ASTM D 412)	N/mm2	Approx. 1.87
Elongation (ASTM D 412)	%	Approx. 260
Tensile Strength (ASTM C1135)	N/㎟	Approx. 1.10
Elongation (ASTM C 1135)	%	Approx. 150
Packaging	-	Base(185 L / 270 Kg) , Curing agent(19 L / 19 Kg)
Shelf Life	Month	12
Weathering Resistance	-	Excellent

* ASTM: American Society for Testing and Materials

Notice 1) These property values are tested in a lab condition. They might be changed by testing and storage conditions.

2) Please contact to KCC sales office before writing specifications on this product.

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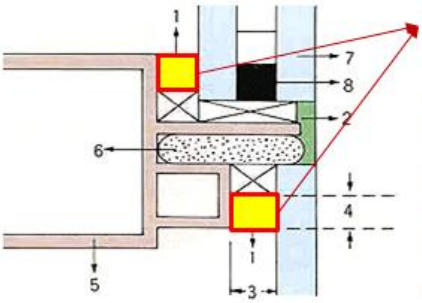
5. How to use



1: Structural Silicone Sealant (SL819, SL820)
2: Weather-Seal
3: Glue-line Thickness (G/T)
4: Structural Bite (S/B)
5: Transom Fin
6: Back-up material
7: Glass
8: Sealant for Insulating glass (SL822)

※ Prior to use SL820(E) Structural Glazing Sealant, Joint design regarding structural bite, glueline thickness and etc must be reviewed by KCC technical service team.

- KCC SL820(E) Sealant should be mixed in a ratio of 9 : 1 base to curing agent by volume or equivalent 13 : 1 by weight for optimal properties. At this mixing ratio, typically pot life is 20 ~ 60min (at 23℃ , 50%RH), Slight change in mixing ratio can be possible but these should not exceed 10 : 1 to 8 : 1 by volume.

- When not being used, it is recommended that the dispensing equipment be purged with uncatalyzed base. If cured sealant has built up inside the equipment it is recommended to flush the equipment for the appropriate time with solvent

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1) CLEAN ALL JOINT SURFACE

Clean all substrate surface and regarding dust oil, frost and any contaminants

Wipe polluted parts using solvent and a piece of cloth. Do not use detergent, soap and water.

2) INSTALL BACK-UP MATERIALS

Backer rod materials such as closed cell polyethylene type can be used as the base of the joint to control sealant depth.

3) MASK ADJACENT SURFACE WITH MASKING TAPE

Masking tape will ensure a clean, neat appearance and reduce clean up by protecting surrounding areas from excess sealant.

4) PRIMING

Primer may be needed for optimum adhesion to some substrate surface based on adhesive testing service.

5) APPLYING SEALANT

Applying sealant deeply into the parts of structural joint for sealant. Structural sealant must be filled into the joint cavity perfectly.

6) TOOL SEALANT

Tool sealant immediately after sealant application. It helps to provide smooth and flat finish and to ensure that the sealant wets the sides of the joint without any voids.

7) REMOVE MASKING TAPE

Remove masking tape prior to forming sealant surface skins.

8) CLEANING

Clean all stuffs around sealant cure area and do not touch when sealant is curing.

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6. Limitation

SL820(E) should not be applied :

※ All exceptions to these guidelines must be reviewed and approved by a KCC Technical Service Team.

※ Prior to use Structural Glazing Sealant, joint design factors regarding structural bite, glueline thickness and etc must be reviewed by KCC Technical Service Team.

1) To building materials of adhesive hindrance or discoloration that bleed oil, plasticizer or solvent and so on.
2) In totally confined spaces.
3) When substrate surface temperatures exceed 50 ℃ and under 5 ℃.
4) To wet surface (on frost-laden or damp surfaces).
5) Humid day(over 85% relative humidity day).
6) For continuous immersion in water or in below-grade applications.
7) Surface in direct contact with food.
8) For continuous high pressure and high temperature.
9) Interior fire prevention section.
10) Joint region that wear is expected by physical friction.
11) Region that paint is required to sealant.
12) Not recommended for use on polycarbonate plastic sheeting, suitability for use on other type of plastic should be tested prior to application.
13) To incompatible gasket and mullion

7. Handling Precautions

* Clean all joint surface (Clean all substrate surface removing contaminants)
* **Primer must be needed** to SL820(E) for optimum adhesion to some substrate surface based on adhesive testing. Information on KCC primer is available on request from KCC. (KCC KP9930, KP9920 primers are recommended for SSG)
* All the materials must be dry and clean
* Glass surface must be clean (Coated glass or Low-e glass is required edge stripping)

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* Use at room temperature in the range of 30 to 80 % relative humidity.
* It is recommend to work at temperature range10℃ to 30℃
* Before working ,check the product is fully mixed
* Opened curing agent should not be exposed to air for prolonged periods.
* Adhesiveness may decline in case of the substrate contaminated. For the best adhesion, clean surfaces thoroughly with solvent before applying the product.
* Wear eye protection and protective gloves when handling this product.
* Maintain adequate ventilation in the work place at all times.
* Keep in place that child's hand does not touch and never ingest or do not touch in skin
* Keep or do work at neighborhood of heat or fire.
* Do not use besides service.
* Do not inflict shock in receptacle.
* Avoid direct ray of light and keep in state that is tightly shut in place that moisture is less.
* Do not mixing with other products.
* Wash cleanly after work.
* Abolish through waste processing company.
* As change in quality can be at long term storage, use in validity.

Confirmation is necessary in regard of SL820(E) before use.

- Apply after adhesion and compatibility test although adhesion of sealant is excellent to most of building materials.
  * Structural applications must be required prior testing. Please contact to KCC before applying
- Sufficient tests are needed for purposed applications. The applicability of sealant is depend on the decision of customer.

※ Inquire other questions to customer service.

※ When there is something wrong to product, it can be compensated by compensation regulation.

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8. Safety and Storage

- Use it within 12 months from the day of manufacture. As change in quality can be possible at long term storage use in validity.
- Store in a cool dry place out of direct sunlight.
- Keep in place that child's hand does not touch and never ingest or do not touch in skin.
- Don't work at neighborhood of heat or fire.
- Store in original unopened containers in a dry place. Temperature should not exceed
  25 ℃ for prolonged periods. (Recommended at 5 ~ 25 ℃)
- Please, refer product MSDS for more details regarding safety information.

9. Packaging

- Base(185L / 270 Kg),
- Curing agent(19 L / 19.3 Kg)

10. Warranty Information – Please read carefully

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that KCC's products are safe, effective, and fully satisfactory for the intended end use.
KCC's sole warranty is that the product will meet the KCC sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to replacement of any product shown to be other than as warranted.
KCC specifically disclaims any other express or implied warranty of fitness for a particular purpose or merchantability. Unless KCC provides you with a specific, duly signed endorsement of fitness for use, KCC disclaims liability for any incidental or consequential damages.

Suggestions of use shall not be taken as inducements to infringe any patent.

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11. Issued date

- The date of first issue : 2016.04.01
- Revision date of issue : 2017.03.21

※ Please, refer product MSDS for more details regarding safety information.