# KORESEAL

# **CONSTRUCTION SEALANTS**

Creating Better Value for All

# **KORESEAL**

CONSTRUCTION SEALANTS





We are spearheading development in architecture and the industrial sector by supplying a wide variety of architectural and industrial materials such as paint, interior and exterior finishing materials, glass, windows, floor decoration materials, and special materials that exhibit superiority.

A leader in the domestic industry, we boast world-class competitiveness in areas ranging from paint, interior and exterior finishing materials and glass to silicone and materials. Based on the exceptional technological prowess gained over half a century, we are relentlessly striving to become a global chemical company known for its cutting-edge technology and impeccable quality by having customer satisfaction as our top priority. By incorporating technologies from the fields of inorganic and organic chemistry, we are consolidating our position in the market as an all-encompassing precision chemistry company and achieving remarkable growth.

# A better life for tomorrow!

# **KCC's Silicone Business**

Silicone, known as "petroleum extracted from rocks," is an advanced material considered perhaps as the best possible alternative to petroleum in a time marked by record high oil prices. In 2004, we became the first in Korea to succeed in commercially producing organic monomers of silicone, and we are now the one and only company in Korea with a complete production system for manufacturing the ingredients for silicone as well as secondary value-added products. With the commercial production of polysilicone, we are capable of manufacturing the core materials of semiconductor wafers and solar cells, based on which we have been growing into a world-class organic and inorganic silicone manufacturer. At KCC, we have successfully completed the research and development (R&D) projects in every possible field related to silicone including monomer production, polymer synthesis and manufacture of applied products. We now manufacture and supply a wide array of silicone products including building sealants, industrial RTVs, silanes as well as silicone fluids, emulsions and dispersing agents.





# **SEALANT** Armed with state-of-the-art facilities and frontier technology, we seek perfection when it comes to product quality and customer service. All of our products are the results of creative R&D activities we've pursued to satisfy diverse customer needs. CONSTRUCTION 07 LIST OF KORESEAL PRODUCTS **SEALANTS** 08 SEALANT TYPES AND USES 09 STRENGTHS & WEAKNESSES BY TYPE 10 SEALING MATERIAL BY AREA

# **CONSTRUCTION SEALANTS**



# **List of KORESEAL Products**

# KORESEAL

Tuno	Applications	Characteristics		Product	Packaging	
Туре		Composition	Curing Type	Movement Capability	rioduct	i ackaging
Silicone	Structural glazing	One-component	Neutral cure	± 25 %	SL819	C, S
	Structural glazing	Two-component	Reaction cure	± 25 %	SL820	D, P
	Secondary Sealing of SSG Insulating Glass	Two-component	Reaction cure	± 25 %	SL822	D, P
	Bathroom and kitchen	One-component	Neutral cure	± 25 %	SL825	С
	Bathroom and kitchen (acrylic bathtub)	One-component	Neutral cure	± 25 %	SL825 PREMIUM	С
	Road, Runway Joints	One-component	Neutral cure	± 50 %	SL850	Р
	Weathersealing	One-component	Neutral cure	± 50 %	SL868	C, S
	(Residential) Secondary Sealing of Insulating Glass	One-component	Neutral cure	± 25 %	SL886	S
	(Residential) Secondary Sealing of Insulating Glass	One-component	Neutral cure	± 25 %	SL921	D
	Stone and porous Substrate	One-component	Neutral cure	± 25 %	SL999	C, S
	General Purpose Glazing	One-component	Neutral cure	± 20 %	SL907	С
	General Purpose Glazing	One-component	Neutral cure	± 20 %	SL907 PREMIUM	С
	(Residential) Secondary Sealing of Insulating Glass	Two-component	Reaction cure	± 20 %	SL922	D, P
	Weathersealing (Non-Staining)	One-component	Neutral cure	± 25 %	SL999	C, S
	Weathersealing (Non-Staining, Alkoxy type)	One-component	Neutral cure	± 50 %	SL999(AK)	C, S
	Around windows	One-component	Neutral cure	± 25 %	SL1000	S
	Fire rated sealant	One-component	Neutral cure	± 25 %	QS119R	С
	Flame retardant sealant(Oxime curing)	One-component	Neutral cure	± 25 %	QS119E	С
Polysulfide	Airport runways	Two-component	Reaction cure	± 25 %	PS9210(L)	Р
	(Residential) Secondary sealing material for insulated glass	Two-component	Reaction cure	± 20 %	PS9220	D, P
Polyurethane	Automotive repair and industrial use	One-component	Moisture cure	± 25 %	PU9323	С
	Architecture and civil engineer	Two-component	Reaction cure	± 25 %	PU9330(N), (L)	Р
Acrylic	Water-based acrylic silicone for fire protection	One-component	Water evaporation cure	± 12.5 %	SW9535A	С
	Sealing for internal soundproofing	One-component	Water evaporation cure	± 12.5 %	WL9530	С
Water Repellent	Water-based water repellent	One-component	Water evaporation cure	,	SI1200Z	Р

<sup>\*\*</sup> Packaging - C : Cartridge, S : Sausage, P : Pail can, D : Drum

# **Primer**

Туре	Applications	Characteristics	Product
Primer	Porous basis materials (stone materials, concrete, etc.)	One-component synthetic rubber	KP9930
	Structural glazing	One-component sealant coupling agent	KP9930
	PC, TPC, GRC	One-component synthetic rubber	KP9930
	Airport runways	One-component synthetic rubber	KP9050

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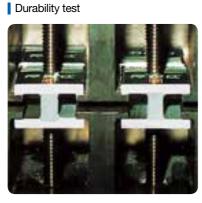
# Sealant Types and Uses

T	Uses	Donali ork	
Туре	Uses	Product	
Silicone	Metal and aluminum composite panel joints	SL999 / SL868	
	Aluminum assembly joints	SL868	
	General glass glazing (non-acetic acid)	SL907, SL907 PREMIUM	
	Around the bathtub and sanitary fixtures	SL825, SL825 PREMIUM (Acrylic)	
	Concrete paved road joints	SL850	
	Al-curtain-wall joints (fluorine)	SL999 / SL868	
Stone panel  Manufacture of insulated glass		SL999	
		SL886/SL921/SL822(SSG)/SL922	
	Structural glazing (SSG)	SL819/SL820	
Polysulfide	Airport runway joints	PS9210(L)	
	General insulated glass	PS9220	
Polyurethane	Concrete and brick joints	PU9330(N)	
	Concrete joints and various expansion joints	PU9330(L)	
Water-based acrylic	Partitions between units (compartmentalization for fire protection)	SW9535A	
emulsion	Soundproof sealing for sound absorbing partitions and window, door, wall and balcony joints of general buildings	WL9530	

# Tensile adhesive strength test



Adhesion test (ASTM C 794)



Staining test (ASTM C 1248)



Compatibility test (ASTM C 1087)



Analytical equipment



# Strengths and Weaknesses by Type

Туре	Strengths	Weaknesses	Remarks
Silicone sealant	Excellent weatherability	Not Paintable	
	Excellent heat and cold resistance	Staining caused by plasticizer	
	Ease of application		
	Excellent Adhesion to most substrates		
	Excellent UV resistance		
	Ease of gun work at all temperature		
Polysulfide sealant	Excellent watertightness and water resistance	Requires mixing time as a two-component product	
(Thiokol)	Fast curing	Curing speed is dependent on the temperature	
	<ul> <li>No tackiness</li> </ul>	Requires primer	
Polyurethane	Price Competitiveness	Requires mixing time as a two-component product	
sealant	Excellent paintability (water-based, urethane-based)	Discoloration (yellow/red)     Tackiness on the surface	
	Excellent elasticity and elongation (LM type)	Requires primer	
Acrylic sealant	Price Competitiveness	Poor weather resistance when used outdoors (for indoor use only)	
	• Excellent paintability (water-based, urethane-based)	Significant volume loss	
	Excellent workability as a one-component type	May freeze in winter	



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# Recommended Sealants for Office Buildings (Exterior)

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Category	Area	Recommended Sealant	Binder	Recommended Primer
Exterior	Joints on stone surface			
	Where stone surfaces meet	SL999 / SL2000	Silicone	KP9930
	Where stone meets concrete or mortar	SL999 / SL2000	Silicone	KP9930
	Where stone meets metal (Aluminum, Steel or Stainless steel)	SL999 / SL2000	Silicone	KP9930
	Al composite panel joints - Fluororesin coating			
	Where Al meets Al	SL868 / SL999	Silicone	
	Where Al meets steel	SL868 / SL999	Silicone	
	Where Al meets stainless steel	SL868 / SL999	Silicone	
	Enamel-enamel joints	SL868 / SL999	Silicone	
	Stainless steel-stainless steel joints	SL868 / SL999	Silicone	
	PC joints			
	Where PC meets PC	SL868 / SL999	Silicone	KP9930
	Where PC meets metal (Aluminum, Steel or Stainless steel)	SL868 / SL999	Silicone	KP9930
	Where painted (natural dry fluorine) PC meets painted PC	SL868 / SL999	Silicone	KP9930
	Where PC meets PC	SL868 / SL999	Silicone	KP9930
	Where GPC meets GPD	SL868 / SL999	Silicone	KP9930
Window	External window area			
	Use a sealant applied to the external walls on areas where metal or PVC windows meet an external wall made of the aforementioned materials	Sealants for external walls		
	Glass area			
	Where glass surface and metal surface (Aluminum, Steel or Stainless steel) meet	SL868 / SL999	Silicone	
	Where glass meets PVC	SL907 / SL907 PREMIUM	Silicone	
	Where glass surfaces meet	SL907 / SL868	Silicone	
	SSG joints	KP9930	Silicone	KP9930
	Weather-sealing joints	SL868/SL999	Silicone	
Light-	Where GRC meets GRC	SL868 / SL999	Silicone	KP9930
weight	Where Dryvit meets Dryvit	SL868 / SL999	Silicone	KP9930
panel on outer	Where ALC meets ALC	SL868 / SL999	Silicone	KP9930
wall	Where PALC meets PALC	SL868 / SL999	Silicone	KP9930
	Where PC(Polycarbonate) meets PC	SL819/SL988	Silicone	
Roof and	Expansion joints			
external	Where concrete meets concrete	PU9330(N) / SL1000	Polyurethane / Silicone	KP9930
wall	Where metal meets metal (Aluminum, Steel, Stainless steel)	SL868/SL999	Silicone	
	New construction joints (roof)			
	Where concrete or mortar meets mortar	PU9330(L)	Polyurethane	KP9930
	Where metal meets concrete	PU9330(L)	Polyurethane	KP9930
	Parapet			
	Where concrete or mortar meets metal (Copper, Al, Stainless)	PU9330(N) / SL1000	Polyurethane / Silicone	KP9930
	Where concrete meets concrete	PU9330(N) / SL1000	Polyurethane / Silicone	KP9930
		• •	•	
	Roof and drain			

<sup>\*\*</sup> The adhesive power may vary depending on the material to which the product is applied. For accurate information on sealant performance, please contact the technical department of KCC.

# Recommended Sealants for Office Buildings (Interior)

Category	Area	Recommended Sealant	Binder	Recommended Primer
Interior	Stone joints			
	Where wood meets concrete or mortar	WL9530	Water-based acrylic	
	Where PVC meets concrete	SL907 PREMIUM	Silicone	Concrete : KP9930
	Where wood meets wallpaper	SL907 PREMIUM	Silicone	
	Where aluminum meets concrete	SL907 PREMIUM	Silicone	Concrete: KP9930
	Joints inside the cleaning room, computer room, et.	SL907 PREMIUM	Silicone	
	Material separator joints			
	Where stainless steel meets concrete	SL907 PREMIUM	Silicone	Concrete : KP9930
	Where stainless steel meets VCT (vinyl steel)	SL907 PREMIUM	Silicone	Concrete: KP9930
	Where stainless steel meets concrete or mortar	SL907 PREMIUM	Silicone	Concrete/Mortar : KP9930
	Steel and stainless steel window parts			
	Where metal (aluminum, steel, stainless steel) meets	SL907 PREMIUM	Silicone	Concrete/Mortar : KP9930
	concrete or mortar Concrete/Mortar: KP9930			
	Joints inside the external windows			
	Where metal meets stone	SL999	Silicone	KP9930
	Where metal meets concrete	PU9330(N) / SL1000	Polyurethane/Silicone	KP9930
	Sleeves inside fire protection walls and compartmentalization			
	Where metal meets concrete	QS119R	Silicone	KP9930
	Where PVC meets concrete	QS119R	Silicone	KP9930
	Pad joints in mechanical room			
	Where metal meets concrete	PU9330(N) / SL1000	Polyurethane/Silicone	KP9930
	Where concrete meets concrete	PU9330(N) / SL1000	Polyurethane/Silicone	KP9930
	Internal partition wall joints when using gypsum board or straw sum board			
	Where metal meets metal	SL907 PREMIUM	Silicone	
	Where metal meets VTC (vinyl, asbestos)	SL907 PREMIUM	Silicone	
Washroom	Where glass meets tile	SL825	Silicone	
	Where glass meets concrete or mortar	SL825	Silicone	Concrete/Mortar : KP9930
	Where glass meets stainless steel	SL825	Silicone	
	Where metal meets tile	SL825	Silicone	
	Sanitary fixtures and tiles			
	Where sanitary fixture (porcelain) meets tile	SL825	Silicone	
	Where sanitary fixture (porcelain) meets stainless steel or copper pipe	SL825	Silicone	
	Where marble meets tile	SL825	Silicone	
	Where marble meets steel	SL825	Silicone	
	Where marble meets wood	SL825	Silicone	
	Where tile meets PVC	SL825	Silicone	
	Where tile meets concrete	SL825	Silicone	Concrete/Mortar : KP9930
	Where tile meets cast iron (Steel)	SL825	Silicone	
	Where tile meets stainless steel	SL825	Silicone	

<sup>\*\*</sup> The adhesive power may vary depending on the material to which the product is applied. For accurate information on sealant performance, please contact the technical department of KCC.

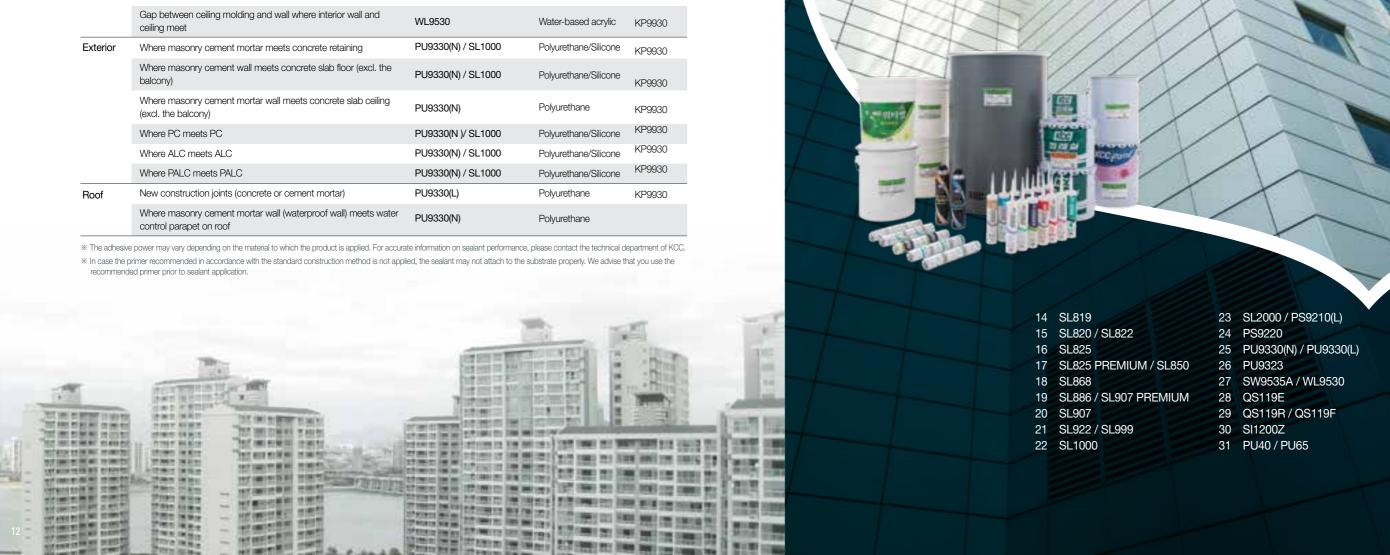
<sup>\*</sup> In case the primer recommended in accordance with the standard construction method is not applied, the sealant may not attach to the substrate properly. We advise that you use the recommended primer prior to sealant application.

# **CONSTRUCTION SEALANTS**



# Recommended Sealant for Residential Buildings

Catanan	A.110	December on dead Content	Disales	Danaman and a di Drivere
Category	Area	Recommended Sealant	Binder	Recommended Primer
Bathroom	Where wooden door frame meets tile	SL825	Silicone	KP9930
	Where artificial marble meets tile	SL825		
	Where ceramic washbasin meets tile	SL825		
	Where artificial marble washbasin meets tile	SL825		
	Where floor tile and wall tile intersect	SL825		
	Where wall tile and wall tile intersect	SL825		
	Where acrylic bathtub meets tile	SL825 PREMIUM		
Kitchen	Where door frame meets window frame	SL825		
	Where kitchen furniture threshold meets tile (base cabinet)	SL825		
	Joints between kitchen furniture pieces (base cabinet)	SL825		
Windows	Balcony (external window)-PVC, Al+com's	SL1000		KP9930
	Balcony (internal window)-PVC, Al+com's	PU9330(N) / SL1000	Polyurethane/Silicone	e KP9930
	Where wooden door frame or window frame meets cement mortar or concrete retaining wall	PU9330(N) / SL1000	Polyurethane/Silicone	KP9930
	Where Al PVC window frame meets glass	SL907		
Interior	Gap caused by poor construction between the interior wooden door and wall (vertical part)	WL9530	Water-based acrylic	
	Gap between ceiling molding and wall where interior wall and ceiling meet	WL9530	Water-based acrylic	KP9930
Exterior	Where masonry cement mortar meets concrete retaining	PU9330(N) / SL1000	Polyurethane/Silicone	E KP9930
	Where masonry cement wall meets concrete slab floor (excl. the balcony)	PU9330(N) / SL1000	Polyurethane/Silicone	e KP9930
	Where masonry cement mortar wall meets concrete slab ceiling (excl. the balcony)	PU9330(N)	Polyurethane	KP9930
	Where PC meets PC	PU9330(N )/ SL1000	Polyurethane/Silicone	KP9930
	Where ALC meets ALC	PU9330(N) / SL1000	Polyurethane/Silicone	KP9930
	Where PALC meets PALC	PU9330(N) / SL1000	Polyurethane/Silicone	KP9930
Roof	New construction joints (concrete or cement mortar)	PU9330(L)	Polyurethane	KP9930
	Where masonry cement mortar wall (waterproof wall) meets water control parapet on roof	PU9330(N)	Polyurethane	



# KCC KORESEAL SEALANT

Sealant refers to a material that is used on joints or cracks of various building members used to maintain watertightness and airtightness. It also serves to boost the durability of the building by fixing the members securely in place with excellent adhesion and elasticity.

PRODUCT INTRODUCTION

KORESEAL SL822

# KORESEAL SL819

# PRODUCT INTRODUCTION



- ▶ The data provided are based on experiments and practical experience and may differ from the results obtained from the products in question depending on the actual working conditions or improvements made to the quality. Users should conduct an adequate review before using the products.
- ▶ For more information on product safety, refer to the Material Safety Data Sheet (MSDS).

# Two-Component SSG KORESEAL SL820

G-25HM

**Properties** 

Property

Appearance(State)

Curing system

Working time

Mixing ratio

Hardness

Elongation

Packing

Specific gravity

Tensile strength

Color



Silicone

2-part reaction curing type

Curing agent (Viscous liquid)

20~60 minutes (23 °C, 50 % RH)

Base : Curing agent = 9 : 1 (by volume)

Base:1.46±0.1 / Curing agent:1.02±0.1

Base (White), Curing agent (Black)

Approx. 1.87 N/m² (ASTM D412)

Approx. 260 % (ASTM D412)

Base-Drum, Curing agent-Pail

Base (Soft paste)

40 ± 5 (Shore A)

KORESEAL SL820 is a two-component reaction cure silicone sealant with excellent adhesion and strength. Boasting outstanding weather resistance and durability, it is suitable for structural glazing which requires sufficient strength and conforms to the requirements of KS G-25HM, ASTM C 1184 and ASTM C 719(Class 25).

## Purpose of Use

• Structural sealant glazing (SSG)

# Characteristics

- A two-component product, the curing speed of which can be adjusted easily. (However, caution must be taken when the surface temperature of the substrate is 5 °C or below or 40 °C or higher)
- Remains flexible after being cured even at low (-50 °C) and high temperatures (150 °C).
- Exhibits excellent weather resistance, durability and mechanical strength and is suitable for SSG
- Requires the use of a primer.



Secondary Sealing of SSG

Insulating Glass
KORESEAL SL822



KORESEAL SL822 is a two-component reaction cure silicone sealant that boasts excellent adhesion and strength. Designed specifically for structural glazing which requires sufficient strength, this product conforms to the requirements of KS G-25HM and ASTM C 1184.

# Purpose of Use

• Secondary sealing of SSG insulating glass

# Characteristics

- A two-component product, the curing speed of which can be adjusted easily.
- Remains flexible after being cured even at low (-50 °C) and high temperatures (150 °C).
- Boasts excellent resistance against ozone and
- Exhibits excellent durability and mechanical



Cone-Component SSG KORESEAL SL819

KORESEAL SL819 is a one-component neutral cure silicone sealant that boasts excellent adhesion and strength. Designed specifically for structural glazing which requires sufficient strength, this product conforms to the requirements of KS G-25HM, ASTM C 1184 and ASTM C 719(Class 25).

# Purpose of Use

Structural sealant glazing (SSG)

# Characteristics

- A one-component sealant that can be used regardless of seasons (good gun workability) (However, caution must be or below or 40 °C or higher)
- Remains flexible after being cured even at low (-50 °C) and high temperatures (150 °C).
- Exhibits excellent weather resistance, durability and mechanical strength and is suitable for SSG uses.



# **Properties**

Property	Result
Туре	Silicone
Curing system	Neutral cure (Alkoxy)
Appearance(State)	Soft paste
Tack free time	Max. 60 minutes (23 ℃, 50 % RH)
Color	black, Gray
Specific gravity	1.33 ± 0.1
Hardness	MIN. 35 (Shore A)
Tensile strength	Approx. 1.36 N/m² (ASTM C 1135)
Elongation	Approx. 300 % (ASTM C 1135)
Packing	300 ml Cartridge, 25 Pcs/Box 500 ml Al sausage, 20 Pcs/Box

# **Properties**

Property	Result
Туре	Silicone
Curing system	2-part reaction curing type
Appearance(State)	Bese (Soft paste)
Appearance(Glate)	Curing agent (Viscous liquid)
Working time	20~60 minutes (23 °C, 50 % RH)
Color	Bese (White), Curing agent (Black)
Mixing ratio	Bese, Curing agent = 9:1 (by volume)
Specific gravity	Base: 1.48±0.1 / Curing agent: 1.03±0.1
Hardness	40 ± 5 (Shore A)
Tensile strength	Approx. 1.85 N/m² (ASTM D412)
Elongation	Approx. 250 % (ASTM D412)
Packing	Bese-Drum, Curing agent-Pail

strength and is suitable for SSG uses. SL819 · Adheres firmly to glass and aluminum. Dist.



- on the actual working conditions or improvements made to the quality. Users should conduct an adequate review before using the products.
- ▶ For more information on product safety, refer to the Material Safety Data Sheet (MSDS).

BIO-KORESEAL SL825 PREMIUM

F-25HM

**Properties** 



Property	Result
Туре	Silicone
Curing system	Neutral cure (Alkoxy)
Appearance(State)	Soft paste
Tack free time	Max. 90 minutes (23 ℃, 50 % RH)
Color	White
Specific gravity	1.37 ± 0.1
Hardness	35 ± 5 (Shore A)
Tensile strength	Approx. 2.2 N/mm² (ASTM D412)
Elongation	Approx. 600 % (ASTM D412)
Packing	300 ml Cartridge, 25 Pcs/Box

BIO-KORESEAL SL825 PREMIUM is a one-component neutral (alkoxy) cure silicone sealant, which turns into a rubber-like material after reacting with the moisture in the air. It has a biological function in that it has excellent anti-bacterial effect. It conforms to the requirements of KS F-25HM.

# Purpose of Use

• For sealing the areas around the bathtub and sink (incl. acrylic bathtub)

## Characteristics

- A one-component sealant that can be used regardless of seasons (good gun workability)
- Exhibits excellent anti-mold effects, weather resistance and durability.
- Adheres well to most substrates, but the recommended primer should be used in the case of certain substrates as well as concrete, brick and other porous substrates.



# BIO-KORESEAL SL825

BIO-KORESEAL SL825 is a one-component neutral cure silicone sealant. Developed based on a biotechnological mechanism to prevent mold growth, this product conforms to the requirements of KS F-25LM.

# Purpose of Use

- For sealing the areas around the bathtub and sink (cannot be used on acrylic bathtubs)
- Areas vulnerable to mold growth in apartments, houses, restaurants, hotels, public bathhouses, hospitals, food manufacturing plants, pharmaceutical plants, semiconductor assembly plants, etc.

## Characteristics

- A one-component sealant that can be used regardless of seasons (good gun workability)
- Remains flexible after being cured even at low (-50 °C) and high temperatures (150 °C).
- Exhibits extremely low degree of shrinkage during curing and boasts excellent weather resistance.
- Displays an excellent anti-bacterial effect even in hot and humid environments.



# **Properties**

Property	Result
Туре	Silicone
Curing system	Neutral cure (Oxime)
Appearance(State)	Soft paste
Tack free time	Max. 10 minutes (23 °C, 50 % RH)
Color	White, transparent and others
Specific gravity	1.02 ± 0.1
Hardness	15 ± 5 (Shore A)
Tensile strength	Approx. 1.0 N/mm² (ASTM D412)
Elongation	Approx. 650 % (ASTM D412)
Packing	300 ml Cartridge, 25 Pcs/Box

Civil Engineering Work and

Road Construction
KORESEAL SL850



KORESEAL SL850 is a one-component neutral cure silicone sealant intended to be used on the expansion joints during construction or civil engineering work. It conforms to the requirements for road construction (ASTM D 5893).

# Purpose of Use

- · Various joints during construction or civil engineering work
- Contraction and expansion joints on concrete roads

## **Properties**

Property	Result
Туре	Silicone
Curing system	Neutral cure (Oxime)
Appearance(State)	Viscous liquid
Tack free time	Max. 90 minutes (23 ℃, 50 % RH)
Color	Gray, Charcoal gray
Specific gravity	1.22 ± 0.1
Hardness	Approx. 25 (Shore C)
Tensile strength	Approx. 0.6 N/mm² (ASTM D412)
Elongation	Approx. 1,000 % (ASTM D412)
Packing	Pail (22.1 kg)

# Characteristics

- Excellent flowability, UV resistance and weather resistance
- · Remains flexible after being cured even at low (-50 °C) and high temperatures (150 °C).
- Excellent adhesion (Primer : KP9930)
- Results in excellent member movement thanks to high elongation rate and resilience.



KCC KORESE

**SL825** 

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- ▶ For more information on product safety, refer to the Material Safety Data Sheet (MSDS).

# Silicone for Insulating Glass KORESEAL SL886

G-25HM, L-2003



KORESEAL SL886 is a one-component neutral cure silicone sealant displaying excellence in durability and weather resistance. Developed for the manufacture of insulated glass, this product conforms to the requirements of KS G -25HM and KS L 2003.

# Purpose of Use

• Secondary sealing of general insulating glass (Cannot be used on SSG insulated glass)

# **Properties**

Property	Result
Туре	Silicone
Curing system	Neutral cure (Oxime)
Appearance(State)	Soft paste
Tack free time	Max. 10 minutes (23 ℃, 50 % RH)
Color	Black, White and others
Specific gravity	1.43 ± 0.1
Hardness	30 ± 5 (Shore A)
Tensile strength	Approx. 1.0 N/mm² (ASTM D412)
Elongation	Approx. 400 % (ASTM D412)
Packing	500 ml Al Sausage, 20 Pcs/Box

# Characteristics

- · A one-component sealant that can be used regardless of seasons (good gun workability)
- Remains flexible after being cured even at low (-50 °C) and high temperatures (150 °C).
- · Adheres firmly to glass and aluminum.
- Boasts excellent resistance against ozone and UV radiation.
- Exhibits excellent durability and mechanical strength



# Weatherseal for Building Exterior HI-KORESEAL SL868

G-25LM, F-25LM

HI-KORESEAL SL868 is a one-component neutral cure silicone sealant designed to exhibit outstanding adhesion, elastic waterproofing and weather resistance on most building materials without the use of a primer. It conforms to the requirements of KS F-25LM, G-25LM and ASTM C 719(Class 50).

# Purpose of Use

- Aluminum curtain wall joints (fluorine paint, anodizing)
- Aluminum composite panel joints
- Porcelain panel joints
- Weather sealing

# Characteristics

HI-KORESEAL

SL868

SL868

Title.

- A one-component sealant that can be used regardless of seasons (good gun workability)
- Remains flexible after being cured even at low (-50 °C) and high temperatures (150 °C).
- Exhibits extremely low degree of shrinkage during curing and boasts excellent weather resistance.
- · Adheres well to most substrates, but the recommended primer should be used in the case of certain substrates as well as concrete, brick and other porous substrates.



# **Properties**

Property	Result
Туре	Silicone
Curing system	Neutral cure (Oxime)
Appearance(State)	Soft paste
Tack free time	Max. 10 minutes (23 ℃, 50 % RH)
Color	Black, Gray, White and others
Specific gravity	1.38 ± 0.1
Hardness	25 ± 5 (Shore A)
Tensile strength	Approx. 1.0 N/mm² (ASTM C 1135)
Elongation	Approx. 700 % (ASTM C 1135)
Packing	300 ml Cartridge, 25 Pcs/Box 500 ml Al sausage, 20 Pcs/Box

# KORESEAL SL907 PREMIUM

G-30SHM, G-30SLM

**Properties** 

Property

Curing system

Tack free time

Specific gravity

Tensile strength

Elongation

Packing

Color

Appearance(State)



Silicone

Neutral cure (Oxime)

Max. 10 minutes (23 ℃, 50 % RH)

White, Gray, Black, Transparent and others

 $30\pm5$  (Shore A) (Transparent  $15\pm5$  (Shore A))

1.43 ± 0.1 (Transparent 1.00 ± 0.1)

Approx. 1.0 N/m² (ASTM D412)

Approx. 450 % (ASTM D412)

(Transparent Approx. 700 %)

300 ml Cartridge, 25 Pcs/Box

KORESEAL SL907 PREMIUM is a one-component neutral cure silicone sealant. Developed for PVC and Al window glazing, this product confirms to the requirements of KS G-30SHM.

- Multi purpose for construction join
- For glazing window glass

Purpose of Use

# Characteristics

- A one-component sealant that can be used regardless of seasons (good gun workability)
- Remains flexible after being cured even at low (-50 °C) and high temperatures (150 °C).
- Exhibits excellent weather resistance and adhesion.





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- ▶ For more information on product safety, refer to the Material Safety Data Sheet (MSDS).

Secondary Sealing of

Insulating Glass KORESEAL SL922

G-20HM L-2003



KORESEAL SL922 is a two-component reaction cure silicone sealant that adheres well to glass. Designed as a secondary sealant for insulated glass, this product conforms to the requirements of KS G-20HM and KS L 2003.

# Purpose of Use

• Secondary sealing of general insulating glass (Cannot be used on SSG insulating glass)

# **Properties**

Property	Result
Туре	Silicone
Curing system	2-part reaction curing type
Appearance(State)	Soft paste
Working time	20~60 minutes (23 °C, 50 % RH)
Color	Base (White), Curing agent (Black)
Mixing ratio	Base : Curing agent = 9 : 1 (by volume)
Specific gravity	Base (1.63±0.1) Curing agent (1.03±0.1)
Hardness	45±5 (Shore A)
Tensile strength	Approx. 0.8 N/mm² (ASTM C1135)
Elongation	Approx. 70 % (ASTM C1135)
Packing	Part A - Drum, Part B - Pail

# Characteristics

- A two-component product, the curing speed of which can be adjusted easily.
- Remains flexible after being cured even at low (-50 °C) and high temperatures (150 °C).
- Boasts excellent resistance against ozone and UV radiation.
- · Adheres firmly to glass and aluminum.



# KORESEAL SL907

G-30SHM, G-30SLM

KORESEAL SL907 is a one-component neutral cure silicone sealant. Developed for PVC and Al window glazing, this product confirms to the requirements of KS. (Colored: G-30SHM, Transparent: G-30SLM)

# Purpose of Use

- Multi purpose for construction join
- For glazing window glass

## Characteristics

- · A one-component sealant that can be used regardless of seasons (good gun workability).
- $\bullet$  Remains flexible after being cured even at low (-50  $^{\circ}\!\text{C})$  and high temperatures (150 °C).
- Exhibits excellent weather resistance and adhesion.



# **Properties**

Property	Result
Туре	Silicone
Curing system	Neutral cure (Oxime)
Appearance(State)	Soft paste
Tack free time	Max. 10 minutes (23 ℃, 50 % RH)
Color	White, Black, Gray and others
Specific gravity	1.43 ± 0.1
Hardness	30 ± 5 (Shore A)
Tensile strength	Approx. 1.0 N/mm² (ASTM D412)
Elongation	Approx. 450 % (ASTM D412)
Packing	300 ml Cartridge, 25 Pcs/Box

Non-Staining Sealant for

# Building Exterior CLEAN-KORESEAL SL999

F-25HM, G-25HM



# **Properties**

Property	Result
Туре	Silicone
Curing system	Neutral cure (Oxime)
Appearance(State)	Soft paste
Tack free time	Max. 30 minutes (23 ℃, 50 % RH)
Color	Black, Gray, White and others
Specific gravity	1.28 ± 0.1
Hardness	30 ± 5 (Shore A)
Tensile strength	Approx. 1.3 N/mm² (ASTM D412)
Elongation	Approx. 450 % (ASTM D412)
Packing	300 ml Cartridge, 25 Pcs/Box 500 ml Al sausage, 20 Pcs/Box

CLEAN-KORESEAL SL999 is a one-component neutral cure silicone sealant that exhibits excellent adhesion to most building exterior materials without the use of a primer. As a non-staining sealant that can be used around joints, it conforms to the requirements of ASTM C 1248(non-staining) and KS F-25HM, G-25HM and ASTM C 719(Class 25).

## Purpose of Use

- For stone panel joints
- For sealing aluminum panel and composite panel joints

## Characteristics

- Non-Staining
- A one-component sealant that can be used regardless of seasons (good gun workability)
- Remains flexible after being cured even at low (-50 °C) and high temperatures (150 ℃).
- · Adheres well to most substrates, but the recommended primer should be used in the case of certain substrates as well as concrete, brick and other porous substrates



KORESEAL SL907

SL907

KCC



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- ▶ For more information on product safety, refer to the Material Safety Data Sheet (MSDS).

Sealing Windows Perimeter KORESEAL SL1000

KORESEAL SL1000 is a one-component neutral cure sealant that exhibits excellent adhesion and weather resistance and creates a strong elastic barrier when used on most building materials, without the need for a primer. It has been specifically developed for use around windows, and it conforms to the requirements of KS F-25LM.

# Purpose of Use

- For sealing movement joints around windows of residential buildings
- Joints between windows and the wall (PVC + CON'C or AL + CON'C)



## Characteristics

- A one-component sealant that can be used regardless of seasons (good gun workability)
- Remains flexible after being cured even at low (-50 °C) and high temperatures
- Exhibits excellent safety against temperature changes due to high elongation rate and resilience.
- Adheres well to most substrates, but the recommended primer should be used in the case of certain substrates as well as concrete, brick and other porous substrates.



# **Properties**

Property	Result
уре	Silicone
Curing system	Neutral cure (Oxime)
Appearance(State)	Soft paste
ack free time	Max. 10 minutes (23 °C, 50 % RH)
Color	Black, Gray, White and others
Specific gravity	1.38 ± 0.1
Hardness	25 ± 5 (Shore A)
ensile strength	Approx. 1.0 N/mm² (ASTM D412)
Elongation	Approx. 650 % (ASTM D412)
Packing	500 ml Al sausage, 20 Pcs/Box

Multi-Purpose Non-Staining Sealant for

# GREEN-KORESEAL SL2000

F-25HM

**Properties** 

Tack free time

Color

Elongation

Packing



GREEN-KORESEAL SL2000 is a one-component neutral cure silicone sealant that exhibits excellent adhesion to most building exterior materials without the use of a primer. As a non-staining sealant that can be used around joints, it conforms to the requirements of KS F-25HM and G-25HM.

# Purpose of Use

- For sealing aluminum panel and composite panel joints
- For porous stone panels

# Characteristics

Silicone Neutral cure (Oxime) Curing system Soft paste Appearance(State) Max. 30 minutes (23 ℃, 50 % RH) Black, Gray, White and others Specific gravity 1.41 ± 0.1 Tensile strength Approx. 1.2 N/mm2 (ASTM D412)

> Approx. 400 % (ASTM D412) 500 ml Al Sausage, 20 Pcs/Box

- A one-component sealant that can be used regardless of seasons (good gun workability)
- Exhibits excellent weather resistance and durability and is non-staining.
- · Adheres well to most substrates, but the recommended primer should be used in the case of certain substrates as well as concrete, brick and other porous substrates.



Construction and

# Civil Engineering Work KORESEAL PS9210 (L)



As a two-component sealant with polysulfide resin as the binder, KORESEAL PS9210(L) is used on airport runways as it exhibits excellent resistance against aircraft fuel. It conforms to the requirements of the US federal standards (SS-S-200E).

# Purpose of Use

- Concrete ground joints on airport runways
- · Concrete joints in construction and civil engineering work

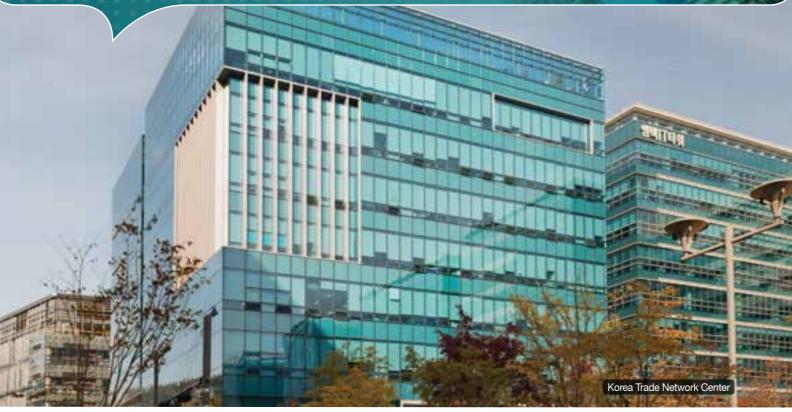
# **Properties**

Property	Result
Туре	Polysulfide
Curing system	2-part reaction curing type
Appearance(State)	Soft paste
Working time	Max. 3 hours (23 °C, 50 % RH)
Color	Part A (White), Part B (Gray)
Mixing ratio	Part A: Part B = 1:1 (by weight)
Hardness	Min. 5 (Shore A)
Tensile strength	Approx. 0.2 N/m² (ASTM C1135)
Elongation	Approx. 500 % (ASTM C1135)
Packing	Pail

## Characteristics

- · Exhibits excellent resistance against fuel.
- Exhibits excellent workability as the main agent and curing agent mix well together.
- Primer: KP9050





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- ▶ For more information on product safety, refer to the Material Safety Data Sheet (MSDS).

Polysulfide Sealant for Insulating Glass

As a two-component sealant with polysulfide resin as the binder, KORESEAL PS9220 is designed to be used in secondary sealing of insulating glass. It conforms to the requirements of KS G-20HM.

# Purpose of Use

• Secondary sealing of general insulating glass (cannot be used on SSG insulating glass)



- Exhibits excellent adhesion to glass and aluminum.
- Cures completely regardless of the season.
- Boasts outstanding elasticity and thus results in ease of movement of the window and excellent tension absorption.
- Associated with very low dispersion of water vapor.
- Good resistance against UV radiation and water.



# **Properties**

Result
Polysulfide
2-part reaction curing type
Soft paste
30 ~ 90 minutes (23 °C, 50 % RH)
Part A (Ivory), Part B (Black)
Part A: Part B = 10:1 (by weight)
Part A (1.63 ± 0.1) Part B (1.03 ± 0.1)
35 ± 5 (Shore A)
Approx. 0.8 N/mm² (ASTM C1135)
Approx. 80 % (ASTM C1135)
Part A - Drum, Part B - Pail

Civil Engineering Work KORESEAL PU9330 (N)

F-25LM



# **Properties**

Property	Result
Туре	Polyurethane
Curing system	2-part reaction curing type
Appearance(State)	Soft paste
Working time	Winter 2 $\sim$ 6 hours (35 $^{\circ}$ C) Summer 3 $\sim$ 8 hours (35 $^{\circ}$ C)
Color	Part A (Yellowish trnsparent), Part B (White, Gray)
Mixing ratio	Part A: Part B = 1:5 (by weight)
Specific gravity	Part A (1.03 ± 0.1), Part B (1.75 ± 0.1)
Hardness	25 ± 5 (Shore A)
Tensile strength	Approx. 0.8 N/mm² (ASTM C1135)
Elongation	Approx. 600 % (ASTM C1135)
Packing	Part A - Can, Part B - Pail

KORESEAL PU9330(N) is a two-component polyurethane sealant consisting of an isocyanate (-NCO)-based main agent and a curing agent containing active hydrogen. Used on various building joints and windows, it conforms to the requirements of KS F-25LM.

# Purpose of Use

• Joints around windows and various types of joints in construction and civil engineering work

## Characteristics

- Can be applied paint for the purpose of enhancing durability and exterior performance after caulking.
- May undergo discoloration or have residual tackiness due to product characteristics.
- Exhibits excellent workability, with the main agent and the curing agent mixing well.
- Exhibits excellent safety against temperature changes due to high elongation rate and resilience.
- Primer : KP9930



Construction and

# Civil Engineering Work KORESEAL PU9330 (L)

## **Properties**

Result
Polyurethane
2-part reaction curing type
Soft paste
2 ~ 6 hours (23 °C, 50 % RH)
Part A (Yellowish trnsparent), Part B (Gray)
Part A: Part B = 1:3 (by weight)
Part A (1.03 $\pm$ 0.1), Part B (1.58 $\pm$ 0.1)
20 ± 10 (Shore A)
Approx. 0.6 N/mm² (ASTM C1135)
Approx. 600 % (ASTM C1135)
Part A - Can, Part B - Pail

KORESEAL PU9330(L) is a two-component polyurethane sealant consisting of an isocyanate (-NCO)-based main agent and a curing agent containing active hydrogen. It is used on the joints on concrete roads.

# Purpose of Use

· Contracting and expanding joints on concrete roads

# Characteristics

- Used on smooth surfaces and inclines with a slope of no more than 15°.
- May undergo discoloration or have residual tackiness due to product characteristics.
- Exhibits excellent workability, with the main agent and the curing agent mixing well.
- Exhibits excellent safety against temperature changes due to high elongation rate and resilience.
- Primer : KP9930





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- ▶ For more information on product safety, refer to the Material Safety Data Sheet (MSDS).

Water-Based Acrylic

# Sealant for Fireproofing FIRE-KORESEAL SW 9535A

F-12,5E

**Properties** 

Curing system

Tack free time

Specific gravity

Tensile strength

Hardness

Elongation

Packing

Color

Appearance(State)



Water-based acrylic emulsion

Approx. 5 kgf/cm<sup>2</sup> (ASTM D412)

Approx. 100 % (ASTM D412)

300 ml Cartridge, 25 Pcs/Box

Moisture evaporation

Max. 60 minutes

10 ± 5 (Shore A)

Soft paste

1.63 ± 0.1

Gray

FIRE-KORESEAL SW9535A is a fireproofing sealant used on gaps in drywalls (fire resistance and soundproofing) of large buildings as well as cables and ducts. It is an outstanding product that has passed the 2-hour fire resistance requirement of FILK FS012.

# Purpose of Use

- For sealing gaps in drywalls (fire resistance and soundproofing) of large buildings
- Used on cables, pipe, ducts and other parts that penetrate walls, etc.
- Sealing fire protection areas inside buildings

## Characteristics

- Easy to use as a one-component, water-soluble product.
- Exhibits excellent sealing performance resulting in exceptional gas-tightness.
- Excellent fire resistance performance (2 hours).
- With adhesion performance, it produces excellent soundproofing and watertightness effects.
- Does not produce any corrosive byproducts or byproducts that are harmful to the human body.
- FILK certification: 2 hours, F, T grades (based on FS012)



KCC

Automotive Repair or

# Industrial Use PU9323

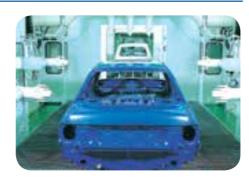


# Purpose of Use

- For car manufacture and repair
- For sealing welds, rivet connections, and overlapping joints
- For container manufacture and repair

# Characteristics

- A one-component sealant that can be used regardless of seasons (good gun workability)
- Exhibits excellent weather and heat resistance.
- Paintable.



# **Properties**

Property	Result
Туре	Modified Silicone
Curing system	Moisture curing type
Appearance(State)	Soft paste
Tack free time	Max. 30 minutes
Color	White, Gray
Specific gravity	1.44 ± 0.1
Tensile strength	Approx. 2.7 N/mm² (ASTM D412)
Elongation	Approx. 600 % (ASTM D412)
Packing	300 ml Cartridge, 25 Pcs/Box



Internal Soundproofing KORESEAL WL9530

KORESEAL WL9530 is an acrylic sealant used to seal joints and seams in walls, ceilings, around windows, between walls, etc. in hospitals, schools, offices, factories, etc. for a soundproofing effect. It conforms to the requirements of KS F-12.5E.

# Purpose of Use

- Gypsum partition joints in buildings
- · Various types of joints and cracks

# **Properties**

Property	Result
Type	Water-based acrylic emulsion
Curing system	Moisture evaporation
Appearance(State)	Soft paste
Tack free time	Max. 60 (min)
Color	White, Gray
Specific gravity	1.6 ± 0.1
Hardness	35 ± 5 (Shore A)
Tensile strength	Approx. 2 kgf/cm² (ASTM D412)
Elongation	Approx. 100 % (ASTM D412)
Packing	300 ml Cartridge, 25 Pcs/Box

# Characteristics

- Possible to paint the surface afterwards. (The color may come out differently depending on the absorption rate and concealment.)
- As a water-based sealant, so there is no toxicity caused by solvent steam.



KORESEAL WL9530





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▶ For more information on product safety, refer to the Material Safety Data Sheet (MSDS).

# One-Component Fireproofing Sealant FIRE-KORESEAL QS119E

G-25HM, F-25HM

FIRE-KORESEAL QS119E is an oxime cure silicone sealant used for fire protection. It is used on linear joints as well as relatively narrow penetration areas such as cables, pipes and ducts so as to prevent the rapid spared of fire and toxic gas. It is an outstanding fire protection sealant that conforms to KS F-25HM and G-25HM.

# Purpose of Use

- For sealing various joints inside and outside the fire protection areas of buildings
- For sealing fire protection areas where the use of indoor ecofriendly members (low TVOC) are required.
- For sealing joints that need to be resistant against fire such as smoke tubes, off-gas ducts, drywalls, cable trays, etc.
- For finishing power facilities such as power plants and substation rooms
- For fireproofing and waterproofing areas containing electric/electronic equipment and other types of equipment vulnerable to water

## Characteristics

- Exhibits an outstanding fireproofing performance (stops fire).
- A one-component sealant that is easy to work with and use.
- Exhibits exceptional durability and outstanding sealing effect even after prolonged expansion and contraction.
- MOLIT Vertical Wall Linear Joint A-2 (MOLIT Notice No. 2018-772)



## **Properties**

Property	Result
Туре	Silicone
Curing system	Neutral cure (Oxime)
Appearance(State)	Soft paste
Tack free time	Max. 30 minutes (23 ℃, 50 % RH)
Color	Black, Gray
Specific gravity	1.50 ± 0.1
Hardness	35 ± 5 (Shore A)
Tensile strength	Approx. 1.0 N/mm² (ASTM D412)
Elongation	Approx. 300 % (ASTM D412)
Packing	300 ml Cartridge, 25 Pcs/Box

One-Component Fireproofing Sealant

# **QS119R**

G-25HM, F-25HM



# **Properties**

Property	Result
Туре	Silicone
Curing system	Neutral cure (Alkoxy)
Appearance(State)	Soft paste
Tack free time	Max. 60 minutes (23 °C, 50 % RH)
Color	Black, Gray
Specific gravity	1.43 ± 0.1
Hardness	35 ± 5 (Shore A)
Tensile strength	Approx. 2.0 N/mm² (ASTM D412)
Elongation	Approx. 500 % (ASTM D412)
Packing	300 ml Cartridge, 25 Pcs/Box

FIRE-KORESEAL QS119R is one-component sealant used for fire protection that is used in relatively narrow penetration areas such as cables, pipes and ducts so as to prevent the rapid spared of fire and toxic gas. It exhibits excellent durability and heat and cold resistance, and it is designed to display outstanding waterproofing, moisture-proofing and soundproofing effects. It conforms to KS G-25HM and F-25HM as well as FILK.

# Purpose of Use

- For sealing various joints in fire protection areas
- For fireproofing and dustproofing computer control rooms, computer rooms, etc.
- For fireproofing and waterproofing areas that are vulnerable to water (containing electronic/electric equipment)
- For fireproofing power utilities such as power plants, transformer rooms, etc.
- Fire protection areas of large buildings such as hospitals, hotels and airports
- Communication-related equipment such as cable terminals, etc. in the computer room or communication room
- Fireproofed glass system for balcony extension

# Characteristics

- Exhibits an outstanding fireproofing performance (stops fire).
- A one-component sealant that is easy to work with and use.
- Exhibits exceptional durability and outstanding sealing effect even after prolonged expansion and contraction.
- FILK Certification: 3 hours, F, T grades (based on FS012)



**Two-Component** 

Fireproofing Sealant FIRE-KORESEAL QS119F



FIRE-KORESEAL QS119F is a two-component fireproofing silicone foam product that is used in inter-floor fireproofing compartmentalization and various types of penetration areas for fire protection.

# Purpose of Use

- Inter-floor fire protection
- Cable tray or curtain wall opening
- Communication equipment circuits and ducts
- · Piping and other penetration areas

## **Properties**

•	
Property	Result
Гуре	Silicone
Curing type	2-part reaction curing type
Appearance(State)	Viscous liquid
/iscosity	Part A - 8 Pa · s / Part B - 8 Pa · s
Color	Part A (Black) / Part B (Gray)
Mixing ratio	Part A: Part B = 1:1 (by volume)
Specific gravity	Part A - 1.1 $\pm$ 0.1 / Part B - 1.1 $\pm$ 0.1
Expansion rate	Approx. 250 %
Cell structure	Closed Cell
Packing	Pail

# Characteristics

- Exhibits excellent fireproofing performance.
- Boasts outstanding volume expansion capacity.
- Does an excellent job stopping the spread of toxic gas.
- Easy to use for repair, etc.
- Boasts exceptional durability and maintains elasticity permanently to absorb vibration and shock.
- FILK Certification: 2 hours, F, T grades (based on FS012)



FIRE-KORESEAL QS119E

Q\$119E

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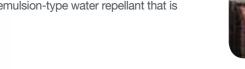
- ▶ The data provided are based on experiments and practical experience and may differ from the results obtained from the products in question depending on the actual working conditions or improvements made to the quality. Users should conduct an adequate review before using the products
- ▶ For more information on product safety, refer to the Material Safety Data Sheet (MSDS).

# Water-Based Silicone Water Repellant KCC WATER-SEAL \$\frac{1}{200}\frac{7}{2}

KCC WATER-SEAL SI1200Z is an off-white water-based silicone water repellant in the form of emulsion. Silicone compound reacts on the substrate to form a semi-permanent water repellant layer on the surface thereby preventing damage and contamination resulting from penetration of water and basic ions. Also, it helps maintain the breathability of the substrate, which in turn helps prolong the lifespan of the building in question. It is a water-based emulsion-type water repellant that is harmless to the human body.



KCC WATER-SEAL SI1200Z



# Purpose of Use

- Concrete, cement, bricks and stone materials
- Porous buildings into which water can penetrate

# **Characteristics**

- This is a water-based eco-friendly product.
- Results in excellent water repellant performance on the applied surface.
- · Exhibits superb breathability



# **Properties**

Property	Result
Туре	Silicone emulsion
Curing system	Moisture evaporation
Viscosity	1 ~ 30 cPs.(Low viscosity fluid)
Color	Milky-white
Active content	7 %
Solvent	Water
Packing	Pail

# One-Component Polyurethane Foam KORESEAL-FORM PU40



# **Properties**

Property	Result
Working temperature	5 ~ 30 ℃
Tack free time	10 ~ 15 min. (20 °C, 60 % RH)
Cutting time	40 ~ 60 min. (20 °C, 60 % RH)
Elapse time for complete hardening	24 hr. (20 ℃, 60 % RH)
Heat resistant temperature (after gardening)	-30 ~ 80 ℃
Combustibility fire class	DIN 4102 B3
Packing	750 ml

This is a one-component polyurethane foam which is hardened by the humidity in the air when it is sprayed from the can. Its expanding capability and adhesiveness are excellent to fill various gaps, empty space and crack and its quality is outstanding in terms of its properties such as thermokeeping, insulation and sound proof.

# Purpose of Use

- Excellent insulation performance, prevention of the spread of vibrations and noise, and excellent adhesion
- Low absorption rate, excellent resistance against moisture penetration, and outstanding compressive strength
- Eco-friendly product that does not contain any chlorofluorocarbons (CFCs)
- Excellent resistance against corrosion caused by water, petroleum, oils, acid, solvents and microorganisms

## Characteristics

- Density: 17 ~ 25 kg/℃
- Thermal conductivity: 0.02~0.04 W/m.k (at 20 °C)
- Water absorption: 1.0~2.0 g / 100 ℃
- Yield: Max. 40 L
- Shelf life: 12 months (at 20 °C)

# One-Component Polyurethane Foam-Flame Retardant KORESEAL FOAM KORESEAL-FORM



# **Properties**

Property	Result
Working temperature	5 ~ 30 ℃
Tack free time	10 ~ 15 min. (20 °C, 60 % RH)
Cutting time	$40 \sim 60$ min. (20 °C, 60 % RH)
Elapse time for complete hardening	24 hr. (20 ℃, 60 % RH)
Heat resistant temperature (after gardening)	-30 ~ 80 ℃
Combustibility fire class	DIN 4102 B2
Packing	750 ml

# Purpose of Use

- Work performance with maximum 60% more volume than normal form
- Can produce up to 65L of foam from a single can (at 20 °C, 60 % RH)
- A flame retardant product that satisfies the requirements of DIN 4102 Fire Class B2 (Germany)

## Characteristics

- Density: 17 ~ 25 kg/℃
- Thermal conductivity: 0.02~0.04 W/m.k (at 20 °C)
- Water absorption: 1.0~2.0 g / 100 ℃
- Yield : Max. 65L
- Shelf life: 18 months (at 20 °C)











# **SEALANT**

A sealant, which is used for the purpose of achieving water- and air-tightness of various types of joints, should satisfy the following three requirements:

- 1. Maintain water and air-tightness as its basic performance.
- 2. After completely cured, sealant should neither crack or detach from joint (must be elastic and flexible enough to accommodate joint movement).
- 3. Exhibit excellent durability.

# TECHNICAL INFORMATION

- 33 SSG Method?
- 34 KORESEAL's Standard Methods and Procedures
- 35 Precautions During Use and Handling
- Calculation of Sealant Usage
- 37 KS (KS F 4910: Sealants for sealing and glazing in buildings)
- 38 List of References

# **KORESEAL SEALANT Data Sheet**

# About the Structural Sealant Glazing (SSG) Method

The structural sealant glazing (SSG) method refers to the sheet glass curtain wall method that involves finishing the external wall with reflective glass, etc. using silicone sealant to prevent external exposure of the metal frame. It was introduced after the development of lock strip gasket glazing in the United States in 1946. In this method, the Al-frame (Mullion), vision glass, structural sealant and accessories are applied in combination, and it is classified into two methods: two-side support method and four-side support method.

# Considerations for SSG

- 1) The importance of structural strength (modulus)
- When the wind pressure against a high-rise building is strong, there may be excess strain on the glass due to the modulus of the sealant, and this can have an effect on the bending or flexural strength of the glass. This is why sealants of medium or low modulus should not be used. When a sealant with a design strength of 1.4 kgf/cm² is applied, the strain must be maintained at no more than 25 %.
- 2) Safety Factor

The safety factor is an important element that determines the extent to which the sealant can withstand the external pressure in a glass structure. The design safety factor of sealants should be at least 5:1.

# Structural Glazing System

- 1) The force to structurally maintain the mullions between glass and metal
- As it can be seen in the pull-off test prescribed in ASTM D412, KSF 4910, etc., the modulus and maximum tensile strength of the sealant used are very crucial, and they serve as the basis for assessing whether the sealant has the strength to withstand external pressure.
- 2) Calculation of the structural bite
- As the most meaningful factor in this method, this refers to the length at which the glass and frame are maintained. The length varies depending on the wind pressure, size and weight of the glass, design, etc.
- 3) Review of the glue line thickness
- The thickness of the sealant should be at least 6mm minimum.
- 4) Sealant color
- Black and gray sealants are mainly used in order to protect the surfaces of building materials against UV radiation.
- 5) Design review
- There is a need to review the design for using a sealant for the purpose of SSG work together with the silicone sealant supplier.
- 6) Silicone sealant for SSG
- 1) For structural use: SL819 (one-component) / SL820 (two-component) 2) For secondary sealing of insulated glass: SL822
- 3) Weather seal: SL868 / SL999 (non-staining)
- 7) Detailed diagram of the horizontal surface of SSG work
- ① Structural silicone sealant (SL819/SL820)
- ② Weather seal silicone sealant (SL999/SL868)
- 3 Glue line thickness
- Structural bite
- (5) Transom fin
- 6 Backup material
- 7) Glass
- ® Secondary sealing material for insulated glass (SL822)

# KCC Structural Bite Calculation Service

- 1) Calculation of the depth (S/B) and width (G/T) required for structural sealant application
- 2) Calculation of the depth (D) required for the application of a secondary sealant for insulated glass
- 3) Calculation of the depth (D) and width (B) required for weather seal application

# **KORESEAL SEALANT Data Sheet**

# Standard Methods and Procedures for Construction Sealants

# 01. Surface Preparation

- Remove any residues from joints such as dust, oil, moisture, and polishing residues.
- . Clean any contaminated areas with a solvent using a cloth. Make sure to use a clean cloth to wipe off the adherend that has solvent. Do not use detergent or water to wash it off. If there is a risk of dissolving the surface to which the sealant will be applied, use isopropyl alcohol. (Use xylene or toluene as a solvent. Do not use petroleum, light oil, or gasoline.)
- In the case of porous materials, clean by grinding or cutting blast, and then remove any residual foreign matter using clean compressed air or vacuum cleaner. Be sure to use the sealant on a clean and dry surface.
- If the adherend is contaminated by other sources of contamination such as dust or rain water, surface treatment must be performed again. Most of the cleaning solvents are highly flammable, and thus there is a need to take the necessary precautions in a well-ventilated area.

# 02. Back-up Material Insertion

- Use a material that does not absorb water such as polyethylene (closed cell type).
- In principle, the back-up material should be 3 to 4 mm thicker than the actual joint (width-wise), but prior approval
- When inserting the back-up material, be careful not to damage the back-up material surface and edges, and adjust the sealant to ensure an appropriate shape factor (depth/width).
- Practice caution, as foaming may occur when using a damaged back-up material.
- Except in special cases, a round back-up material should be used, in principle. If a back-up material cannot be used, use bond breaker tape.
- Back-up materials should be installed only in the area that is worked on that day.

# 03. Masking

- To prevent contamination or damage around the area of sealant application, attach tape to both sides of the joint, and use a product that does not leave any adhesive residues once the masking tape is removed.
- Masking tape should be used only on the area that is worked on that day.

# 04. Primer Application

- Before applying the sealant, check and confirm its adhesion with the adherend through the adhesion test. We recommend suitable primers based on the results of performing an adhesion test on the sealant and the materials used at the project site.
- To ensure proper adhesion between the sealant and adherend, make sure to apply the recommended KORESEAL primer evenly with a brush. (Coating amount: 0.3kg/m2) Be careful not to apply primer to the back-up material. (Using excess primer may lead to loss of adhesive strength, so apply it with care. If excessively applied, a white film will form on the surface, which may cause adhesion failure. So make sure to clean the surface before proceeding.) Be careful not to apply the primer on areas other than the adherend (Norton tape, etc.).
- · Most primers are highly flammable, and thus there is a need to take the necessary precautions in a well-ventilated area.

# 05. Sealant Filling

- After applying the primer, the area in question should be filled with the sealant as soon as possible after the specified drying time (30 minutes) has elapsed.
- Filling should start from the intersections or edges of the joints, and it should be performed meticulously covering every corner to prevent any gaps or air bubbles. Avoid any intersections or corners when finishing the filling process.
- Be careful not to let any air bubbles enter the joints.

# 06. Surface Finishing (Tooling)

- Perform tooling immediately after the caulking work before the sealant hardens.
- · Prepare a spatula that fits the width of the joint in question, and use it to push against the surface of the sealant at a specified angle.
- Use the spatula to push the sealant several times at an intersection or corner.

# Removal

- 07. Masking Tape Remove the masking tape immediately after tooling. Make sure the area around it is clean and uniform.
- 08. Cleaning
- · Be careful not to affect the adherend and sealant when cleaning the surrounding area after completing the work.

# 09. Curing

• During curing, the area to which the sealant has been applied should be protected from dust and other forms of contamination. Do not touch it until it is completely cured, and be careful not to apply any physical impact. (Caution: The sealant and adherend must be fixed in place to prevent movement until the sealant is completely cured.)

# **Precautions During Use and Handling**

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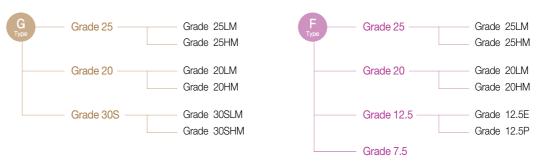
- Keep out of reach of children. The contents may have an adverse impact on health such as headache, dizziness, and dermatitis. Be careful not to ingest the product, inhale its vapor, or come into direct contact with it.
- Do not store or use the product near fire or flame.
- Make sure to ventilate the area sufficiently when using or drying the product in an enclosed place.
- Use of the product for purposes other than the specified is strictly prohibited.
- Be careful not to cause any physical impact on the container.
- During transportation and storage, store it in a dry and cool place (5~25 °C) that does not receive any direct sunlight to prevent deterioration. Containers must be kept sealed, and the product remaining after use should be stored in the same way. (When water gets in, it will become gel-like and cannot be used.)
- Avoid using the product on rainy days, days with high humidity (over 85%), and cold days (below 5 °C), as the product will not exhibit its normal properties. (Cracks and adhesion failures among other problems may occur, so please contact our research department
- Determining the width and depth of the joint is very important when it comes to using a sealant for the purpose of adhesion, and it is not desirable for the joint to be too shallow or deep. (Recommended joint specification – Width: Depth = 2:1, the width of the adherend needs to be at least 6 mm. Otherwise, adhesion failure may occur depending on the substrate and construction condition.) - For inquiries on adequate joint shape and related matters, please contact our technical department.
- Do not use on adherends whose temperature is above 50 °C.
- The curing speed may vary depending on the amount applied.
- If the adherend is contaminated, the adhesive strength may become reduced. So wipe off the surface with a cleaning agent to ensure proper adhesion.
- The specified drying time must be observed, as it has a decisive effect on sealant performance.
- Yellowing may occur in case of prolonged exposure to UV radiation.
- Do not mix this product with other products (solvent, thinner, etc.).
- Do not use silicone sealant for non-polluting fluorine or self-cleaning glass materials.
- Wear gloves and protective goggles when handling the product.
- Damaged back-up material may lead to formation of air bubbles on the surface and inside of the sealant, which will likely degrade the final appearance.
- In the case of a structure whose back surface is not sealed, swelling and air bubbles may occur on the sealant surface due to joint movement, inflow of external air, etc. So be sure to use it on a sealed structure.
- In case of large movements in the joint during the initial curing process of the sealant after application, surface wrinkles may occur as the sealant hardens. So make sure to apply the sealant when there is minimal temperature variation causing contraction and expansion of the material.
- Wash the exposed areas of the body after completing the work.
- Make sure to dispose of the product through a waste disposal company designated by the Ministry of Environment.
- Our sealants are chemical products, and they may deteriorate in case of prolonged storage. So make sure to use it before the expiration date.
- \* The color, volume, date of manufacture, and lot number are indicated separately on each product.
- \* For other inquiries, please visit our website or contact our customer service center for more information.
- \* If there is any problem with the product you have purchased from us, we will provide compensation in accordance with the damage compensation regulations announced by the Ministry of Economy and Finance.

# Calculation of Sealant Usage

Joint Size (mm)	Sealant Usage Per Meter (M)					
Width • Depth	Amount of sealant per M (L)	Number of sealing M per cartridge (300ml)				
3 × 3	0.009	34.4				
4 × 4	0.016	19.4				
5 × 5	0.025	12.4				
6 × 6	0.036	8.6				
8 × 8	0.064	4.8				
10 × 5	0.05	6.2				
10 × 10	0.1	3.1				
15 × 10	0.15	2.1				
15 × 15	0.23	1.3				
20 × 10	0.2	1.5				
20 × 15	0.3	1				
20 × 20	0.4	0.7				
30 × 10	0.3	1				
30 × 15	0.45	0.7				
30 × 20	0.6	0.5				
40 × 10	0.4	0.8				
40 × 20	0.8	0.4				
40 × 30	1.2	0.3				
50 × 10	0.5	0.6				
50 × 20	1	0.3				
50 × 30	1.5	0.2				

# KS (KS F 4910 : Sealants for sealing and glazing in buildings)

# 1. Types of Sealants



# 2. Sealant Performance

# 1) G Type Grades

	Characteristics		Grades 25LM 25HM 20LM 20HM 30SLM 30SHM					Test Method KS F 2621	
Resistance to flow (mm)  Horizontally				3 and	under			4 1 (2)	
nesistarice	e to now (mm)	Vertically			3 and	under			4.1(2)
Elastic reco	overy (%)				60 and	d over			4.2(2)
	The ratio of elongation % (3)		200 (	M100)		160 (	(M60)		
Tensile properties	secant tensile modulus	23 ℃	0.4 and under	More than 0.4	0.4 and under	More than 0.4	0.4 and under	More than 0.4	4.3(2)
	(N/mm²)	-20 ℃	0.6 and under	More than 0.6	0.6 and under	More than 0.6	0.6 and under	More than 0.6	
Tensile pro	perties at maintained	extension	Should not undergo failure (5)				4.4(2)		
Adhesion/coh	nesion properties at variabl	e temperatures			Should not und	dergo failure (6)	)		4.5(2)
	Adhesion/cohesion properties after exposure on heat and artificial light and to water  Should not undergo failure (5)				4.7(2)				
Adhesion/cohesion properties at maintained extension after water immersion			Should not undergo failure (5)			4.8(2)			
Resistance to compression (N/mm²) Report the test results				4.9(2)					
Loss of volume (%)			10 and under			4.11(2)			

# 2) F Type Grades

Characteristics			Grades			Test Method				
Onal acteristics			25LM	25HM	20LM	20HM	12.5E	12.5P	7.5	KS F 2621
Registance	e to flow (mm)	Horizontally			;	3 and unde	r			4 1 (2)
i icolotal ice	s to now (mm)	Vertically		3 and under					4.1(2)	
Elastic reco	overy (%)		70 and	d over	60 an	d over	40 and over	Under 40	-	4.2 (2)
	The ratio of elongation	n % (³)	200 (1	M100)	160	(M60)		-		
Tensile properties	secant tensile modulu	s 23 ℃	0.4 and under	More than O.4 (4)	0.4 and under	More than O.4 (4)	-		4.3 (2)	
proportios	(N/mm²)	-20 ℃	0.6 and under	More than O.6 (4)	0.6 and under	More than O.6 (4)				
	Elongation at break % (6)		-		100 and over	20 and over				
Tensile prop	perties at maintained ex	rtension	Should not undergo failure (5)					-	4.4 (2)	
Adhesion/coh	nesion properties at variab	le temperatures		Should	not undergo	failure (6)			-	4.5 (2)
Adhesion/co	phesion properties		-			Should not und	dergo failure (4)	4.7 (2)		
Adhesion/cohesion properties at maintained extension after water immersion		Should not undergo failure (5)				-	4.8 (2)			
Elongation at break after water immersion (7)		-			100 and over	20 and over	4.9 (2)			
Loss of volu	ıme			10 and under		2	25 and under	r	4.11 (2)	

# List of References - Structural Use

Construction Project	Location	Construction Firm	Area of Use	Product Used
Garak Market Facility Modernization Project	Songpa-gu, Seoul	Daelim Industrial	Structural Use	KORESEAL SL819/SL820
Noryangjn Fish Market Modernization Project	Dongjak-gu, Seoul	Hyundai E&C	Structural Use	KORESEAL SL819
New Head Office Building of LH in Jinju	Jinju, Gyeongsangnam-do	Hyundai E&C	Structural Use	KORESEAL SL819
Ulsan District Public Prosecutors' Office Building	Nam-gu, Ulsan	Taeyoung E&C	Structural Use	KORESEAL SL819
Anyang O'BIZ Tower	Dongan-gu, Anyang	Daewoo E&C	Structural Use	KORESEAL SL819
Yongsan National Hangeul Museum	Yongsan-gu, Seoul	Ssangyong E&C	Structural Use	KORESEAL SL819
Rural Development Administration Office Building	Jeonju, Jeollabuk-do.	GS E&C	Structural Use	KORESEAL SL819
Songdo Central Park 2	Yeonsu-gu, Incheon	POSCO E&C	Structural Use	KORESEAL SL819
Korea Expressway Corporation Office Building	Gimcheon, Gyeongsangbuk-do	POSCO, etc.	Structural Use	KORESEAL SL819
Busan International Finance Center (BIFC)	Nam-gu, Busan	Hyundai E&C, etc.	Structural Use	KORESEAL SL819/SL820
Seongsu-dong Knowledge Industry Center	Gwangjin-gu, Seoul	Lotte E&C	Structural Use	KORESEAL SL819
Suwon Lotte Shopping Mall	Gwonseon-gu, Suwon	Lotte E&C	Structural Use	KORESEAL SL819
International Passenger Terminal at the Port of Busan	Dong-gu, Busan	Hyundai E&C	Structural Use	KORESEAL SL819
Seoul Forest KOLON Digital Tower	Seongdong-gu, Seoul	KOLON E&C	Structural Use	KORESEAL SL819
Seomyeon THE# Central Star	Busanjin-gu, Busan	POSCO E&C	Structural Use	KORESEAL SL819
Gasan-dong Ace VIII	Geumcheon-gu, Seoul	Ace Construction	Structural Use	KORESEAL SL819
Songdo GSXi Harbor View	Yeonsu-gu, Incheon	GS E&C	Structural Use	KORESEAL SL819
Ulsan Taehwa River Exilu Tower	Nam-gu, Ulsan	Poonglim	Structural Use	KORESEAL SL819
Songdo Daewoo Prugio	Yeonsu-gu, Incheon	Daewoo E&C	Structural Use	KORESEAL SL819
Gasan-dong Woolim Lions Valley II	Guro-gu, Seoul	Woolim Construction	Structural Use	KORESEAL SL819
Bupyeong Woolim Lions Valley	Bupyeong, Gyeonggi-do	Woolim Construction	Structural Use	KORESEAL SL819
Guro-dong KOLON Science Valley	Guro-gu, Seoul	KOLON E&C	Structural Use	KORESEAL SL819
Bundang Tower Palace	Bundang, Gyeonggi-do	Samsung Heavy Industries	Structural Use	KORESEAL SL819
Korea International Exhibition Center (KINTEX)	Goyang, Gyeonggi-do	Hyundai E&C, etc.	Structural Use	KORESEAL SL819
Yongin Administrative Town	Yongin, Gyeonggi-do	Hyundai E&C	Structural Use	KORESEAL SL819
Daegu Dalseong-gun Government Complex	Dalseong-gu, Daegu	Hyundai E&C	Structural Use	KORESEAL SL819
Dogok-dong SK Leaders View	Gangnam-gu, Seoul	SK E&C	Structural Use	KORESEAL SL819
Samsung Fire & Marine Insurance Office Building in Cheongnyangni	Dongdaemun-gu, Seoul	Samsung C&T Corp.	Structural Use	KORESEAL SL819
Samsung Heavy Industries' Office Building on Geojedo Island	Geoje, Gyeongsangnam-do	Samsung Heavy Industries	Structural Use	KORESEAL SL819
Busan Bene City	Haeundae-gu, Busan	Hyundai E&C	Structural Use	KORESEAL SL819
Yeongdeungpo Jump Milano	Yeongdeungpo-gu, Seoul	Daelim Industrial	Structural Use	KORESEAL SL819
Yongsan Station Complex	Yongsan-gu, Seoul	HDC Hyundai Development Company	Structural Use	KORESEAL SL819
Yongsan LG Xi	Yongsan-gu, Seoul	LG E&C	Structural Use	KORESEAL SL819
Jeollanam-do Government Complex	Muan, Jeollanam-do	LG E&C	Structural Use	KORESEAL SL819
Remodeling work on the Securities Supervisory Board Office	Yeongdeungpo-gu, Seoul	Dongbu Corp.	Structural Use	KORESEAL SL819
Lotte Castle Empire in Yeouido	Yeongdeungpo-gu, Seoul	Lotte E&C	Structural Use	KORESEAL SL820
Bundang I-SPACE I,II,III	Seongnam, Gyeonggi-do	HDC Hyundai Development Company	Structural Use	KORESEAL SL820
Mok-dong Chereville II	Yangcheon-gu, Seoul	Samsung C&T Corp.	Structural Use	KORESEAL SL820
Jamsil Hanwha Galleria	Songpa-gu, Seoul	Hanwha E&C	Structural Use	KORESEAL SL820
Daelim Acro Vista	Seocho-gu, Seoul	Daelim Industrial	Structural Use	KORESEAL SL820
Star Tower Building	Gangnam-gu, Seoul	HDC Hyundai Development Company	Structural Use	KORESEAL SL820
Lotte Castle Cheonjiin in SUngin-dong	Jongno-gu, Seoul	Lotte E&C	Structural Use	KORESEAL SL819
Halim POS Ville at Geondae Station	Gwangjin-gu, Seoul	POSCO E&C	Structural Use	KORESEAL SL819
Busan Yuwon Golden Tower	Busanjin-gu, Busan	Yuwon E&C	Structural Use	KORESEAL SL819
International Electronic Center	Seocho-gu, Seoul	Shinwon construction	Structural Use	KORESEAL SL819
Missy-860 Office Building	Gangnam-gu, Seoul	Nasan Construction	Structural Use	KORESEAL SL819
Icheon High-nics Research	Icheon, Gyeonggi-do	Hyundai E&C	Structural Use	KORESEAL SL819
Halla Corp. Office Building	Songpa-gu, Seoul	Halla Corp.	Structural Use	KORESEAL SL819
Korea National Housing Corporation Office Building	Seongnam, Gyeonggi-do	Yuwon E&C	Structural Use	KORESEAL SL819
Techno Mart-21	Gwangjin-gu, Seoul	Hyundai E&C	Structural Use	KORESEAL SL819

# List of References - Weather Sealing

Construction Project	Location	Construction Firm	Area of Use	Product Used
Yeouido Lotte Castle Empire	Yeongdeungpo-gu, Seoul	Lotte E&C	Exterior panel and weather sealing	Non-polluting SL999
Jeollabuk-do Government Complex	Jeonju, Jeollabuk-do	Kumho E&C	Exterior panel and weather sealing	Non-polluting SL999
Dogok-dong Academy Suite	Gangnam-gu, Seoul	Rasung Construction	Exterior panel and weather sealing	Non-polluting SL999
Dogok-dong Tower Palace I and II	Gangnam-gu, Seoul	Samsung C&T Corp.	Exterior panel and weather sealing	Non-polluting SL999
Bucheon Rodamco Plaza	Bucheon, Gyeonggi-do	HDC Hyundai Development Company	Exterior panel and weather sealing	Non-polluting SL999
Bundang Michelan Chereville	Seongnam, Gyeonggi-do	Samsung Heavy Industries	Exterior panel and weather sealing	Non-polluting SL999
Mapo Hanwha Obelisk	Mapo-gu, Seoul	Hanwha E&C	Exterior panel and weather sealing	Non-polluting SL999
Ministry of Defense Building	Yongsan-gu, Seoul	HDC Hyundai Development Company	Stone material and weather sealing	Non-polluting SL999
Repair work on Samsung Electronics' Project Web Building in Giheung	Giheung, Gyeonggi-do	Samsung C&T Corp.	Stone material and weather sealing	Non-polluting SL999
Repair work on the main building of the Bank of Korea	Jung-gu, Seoul	Hyundai E&C	GPC and window areas	Non-polluting SL999
Repair work on Seongu Building in Seocho-dong	Seocho-gu, Seoul	Hyundai E&C	GPC and window areas	Non-polluting SL999
Repair work on Hyundai E&C's office building in Gye-dong	Jongno-gu, Seoul	Hyundai E&C	GPC and window areas	Non-polluting SL999
Repair work on Federation of Korean Industries Head	Yeongdeungpo-gu, Seoul	HDC Hyundai Development Company	TPC and window areas	Non-polluting SL999
Office Building in Yeouido Seoul Nat'l Univ. Hospital Clinical Medicine Building	Jongno-gu, Seoul	Samsung C&T Corp.	Stone material and window areas	Non-polluting SL999
Seoul Nat' Univ. College of Agricultural and Life Sciences	Gwanak-gu, Seoul	HDC Hyundai Development Company	Red brick and window areas	Non-polluting SL999
Hyundai Motor Research Center in Namyang	Hwaseong, Gyeonggi	H-LAND	Stone material and window areas	Non-polluting SL999
Repair work on the Ilsan Co-Generation Power Plant	Goyang, Gyeonggi-do	KEPCO	PC and window areas	Non-polluting SL999
Hyundai Department Store	Gangdong-gu, Seoul	HDC Hyundai Development Company	Stone material and weather sealing	Non-polluting SL999
Asan City Hall	Onyang, Chungcheongnam-do	Seokwang Construction	Stone material and weather sealing	Non-polluting SL999
Gimhae Museum	Gimhae, Gyeongsangnam-do	Samsung C&T Corp.	Exterior panel and weather sealing	Non-polluting SL999
SK Telecom Bundang Support Facilities	Seongnam, Gyeonggi-do	Sun Kyong Construction	Stone material and weather sealing	Non-polluting SL999
SK Telecom Chungbuk Branch	Cheongia, Chungcheongbuk-do		Stone material and weather sealing	
· ·	3, , , , ,	Sun Kyong Construction Samsung Heavy Industries	ŭ	Non-polluting SL999
Samsung Fire and Marine Insurance Office Building in Incheon	Yeonsu-gu, Incheon		Stone material and weather sealing	Non-polluting SL999
Kobaco	Yangcheon-gu, Seoul	HDC Hyundai Development Company	Weather Sealing	Non-polluting SL999
Yeouido River Tower Repair work on the exterior of the main branch of Hyundai	Yeongdeungpo-gu, Seoul	Shinhan E&C	Stone material and weather sealing	Non-polluting SL999
Department Store	Gangnam-gu, Seoul	Hyundai E&C	Stone material and weather sealing	Non-polluting SL999
Hyundai Heavy Industries Office Building	Gangnam-gu, Seoul	Hyundai Heavy Industries	Stone material and weather sealing	Non-polluting SL999
HDC Hyundai Development Company Office Building	Gangnam-gu, Seoul	HDC Hyundai Development Company	Exterior panel and weather sealing	Non-polluting SL999
Techno Mart-21	Gwangjin-gu, Seoul	Hyundai E&C	Exterior panel and weather sealing	Non-polluting SL999
Hyundai Department Store Cheonho Branch	Gangdong-gu, Seoul	HDC Hyundai Development Company	Stone material and weather sealing	Non-polluting SL999
Incheon International Airport (Yeongjongdo)	Yeongjongdo, Incheon	Hanjin Consortium	Exterior panel and weather sealing	Non-polluting SL999
Mok-dong Samsung Chereville II	Yangcheon-gu, Seoul	Samsung C&T Corp.	Weather seal	KORESEAL SL868
Haeundae Centum City	Haeundae-gu, Busan	POSCO Development	Weather seal	KORESEAL SL868
Haeundae Bene City	Haeundae-gu, Busan	Hyundai E&C	Weather seal	KORESEAL SL868
Yeouido Daewoo Trump World II	Yeongdeungpo-gu, Seoul	Daewoo E&C	Weather seal	KORESEAL SL868
Pyeongcheon Hyosung Intellian	Dongan-gu, Anyang	Hyosung E&C	Weather seal	KORESEAL SL868
Sung Won Sante View in Deungchon-dong	Gangseo-gu, Seoul	Sung Won Corp.	AL panel	KORESEAL SL868
Military Mutual Aid Association Hall in Dogok-dong	Gangnam-gu, Seoul	Hyundai E&C	AL panel	KORESEAL SL868
Auxiliary facilities of Incheon International Airport	Yeongjongdo, Incheon	Kumho Consortium	AL panel	KORESEAL SL868
Samsung Lacville in Ilsan	Goyang, Gyeonggi-do	Samsung Heavy Industries	Weather seal	KORESEAL SL868
Keungil Tower	Gangnam-gu, Seoul	Samsung Construction	AL-curtain wall	KORESEAL SL868
Korea Technology Finance Corporation (Kibo) Office Building	Yuseong-gu, Daejeon	Daewoo E&C	Weather seal	KORESEAL SL868
KOPEC Information Center	Yongin, Gyeonggi-do	Hanjin Construction	Weather seal	KORESEAL SL868
Midopa Department Store	Dobong-gu, Seoul	Midopa Construction	Weather seal	KORESEAL SL868
Cheil Sports Building	Songpa-gu, Seoul	Korea Development	Weather seal	KORESEAL SL868
Yangdong zones 4 and 5	Jung-gu, Seoul	Daewoo E&C	Weather seal	KORESEAL SL868
Wonbang Building	Gangnam-gu, Seoul	Doosan E&C	Weather seal	KORESEAL SL868
Llanabia Casuvitias Canadana Duildina	Songpa-gu, Seoul	Samgyeong Construction	Weather seal	KORESEAL SL868
Hanshin Securities Gangdong Building		KOLON E&C	Weather seal	KORESEAL SL868
Boram Securities Office Building	Yeongdeungpo-gu, Seoul	1102011200		
	Yeongdeungpo-gu, Seoul Seocho-gu, Seoul	Doosan E&C	Alpolic panel	KORESEAL SL868
Boram Securities Office Building	0 0, 0		Alpolic panel Alucobond panel	KORESEAL SL868 KORESEAL SL868
Boram Securities Office Building Aju Corporation Office Building	Seocho-gu, Seoul	Doosan E&C		

# List of References - SL825/SL907

Construction Project	Location	Construction Firm	Area of Use	Product Used
Bundang New Town Daewon APT	Seongnam, Gyeonggi-do	Daewon Construction	Bathtub area and glass glazing	KORESEAL SL825, SL907
Bundang New Town Dongah APT	Seongnam, Gyeonggi-do	Dongah Construction Industrial	Bathtub area and glass glazing	KORESEAL SL825, SL907
Bundang New Town LG APT	Seongnam, Gyeonggi-do	LG E&C	Bathtub area and glass glazing	KORESEAL SL825, SL907
Ilsan New Town Hanjin APT	Goyang, Gyeonggi-do	Hanjin Construction	Bathtub area and glass glazing	KORESEAL SL825, SL907
Ilsan New Town Taeyoung APT	Goyang, Gyeonggi-do	Taeyoung	Bathtub area and glass glazing	KORESEAL SL825, SL907
Ilsan New Town Hyundai APT	Goyang, Gyeonggi-do	HDC Hyundai Development Company	Bathtub area and glass glazing	KORESEAL SL825, SL907
Ilsan New Town KOLON APT	Goyang, Gyeonggi-do	KOLON E&C	Bathtub area and glass glazing	KORESEAL SL825, SL907
Ilsan New Town Hanyang PC APT	Goyang, Gyeonggi-do	Hanyang	Bathtub area and glass glazing	KORESEAL SL825, SL907
Sanbon New Town Shinhan APT	Sanbon, Gyeonggi-do	Shinhan	Bathtub area and glass glazing	KORESEAL SL825, SL907
Sanbon New Town Shinhan APT	Sanbon, Gyeonggi-do	Sungjee Construction	Bathtub area and glass glazing	KORESEAL SL825, SL907
Sanbon Burnyang Construction APT	Sanbon, Gyeonggi-do	Burnyang Construction	Bathtub area and glass glazing	KORESEAL SL825, SL907
Sanbon New Town Sungjee APT	Sanbon, Gyeonggi-do	Sungjee Construction	Bathtub area and glass glazing	KORESEAL SL825, SL907
Yongin Poonglim APT	Yongin, Gyeonggi-do	Poonglim Construction	Bathtub area and glass glazing	KORESEAL SL825, SL907
Yongin Dongmoon APT	Yongin, Gyeonggi-do	Dongmoon Construction	Bathtub area and glass glazing	KORESEAL SL825, SL907
Yongin Hyundai APT	Yongin, Gyeonggi-do	HDC Hyundai Development Company	Bathtub area and glass glazing	KORESEAL SL825, SL907
Yongin Samsung APT	Yongin, Gyeonggi-do	Samsung E&C	Bathtub area and glass glazing	KORESEAL SL825, SL907
Yongin Hanseong APT	Yongin, Gyeonggi-do	Hanseong	Bathtub area and glass glazing	KORESEAL SL825, SL907
Anyang Samsung APT	Anyang, Gyeonggi-do	Samsung E&C	Bathtub area and glass glazing	KORESEAL SL825, SL907
Sanbon Samsung APT	Sanbon, Gyeonggi-do	Samsung E&C	Bathtub area and glass glazing	KORESEAL SL825, SL907
Hanam Hanshin APT	Hanam, Gyeonggi-do	Hanshin Construction	Bathtub area and glass glazing	KORESEAL SL825, SL907
Hanam Shinan APT	Hanam, Gyeonggi-do	Shinan Construction	Bathtub area and glass glazing	KORESEAL SL825, SL907
Bundang Jugong PC APT	Seongnam, Gyeonggi-do	Kumgang APT	Bathtub area and glass glazing	KORESEAL SL825, SL907
Bundang Hanyang PC APT	Seongnam, Gyeonggi-do	Hanyang	Bathtub area and glass glazing	KORESEAL SL825, SL907
Bundang Hanjin APT	Seongnam, Gyeonggi-do	Hanjin Construction	Bathtub area and glass glazing	KORESEAL SL825, SL907
Bundang Midopa APT	Seongnam, Gyeonggi-do	Midopa Construction	Bathtub area and glass glazing	KORESEAL SL825, SL907
Bundang Jugong PC APT	Seongnam, Gyeonggi-do	HDC Hyundai Development Company	Bathtub area and glass glazing	KORESEAL SL825, SL907
Icheon Hyundai APT	Icheon, Gyeonggi-do	HDC Hyundai Development Company	Bathtub area and glass glazing	KORESEAL SL825, SL907
Gwangmyeong Hyundai APT	Gwangmyeong, Gyeonggi-do	Hyundai E&C	Bathtub area and glass glazing	KORESEAL SL825, SL907
Guri LG PC APT	Guri, Gyeonggi-do	LG E&C	Bathtub area and glass glazing	KORESEAL SL825, SL907
Guri Hyundai APT	Guri, Gyeonggi-do	HDC Hyundai Development Company	Bathtub area and glass glazing	KORESEAL SL825, SL907
Siheung Byucksan APT	Guro-gu, Seoul	BECCO	Bathtub area and glass glazing	KORESEAL SL825, SL907
Guui-dong Prime APT	Gwangjin-gu, Seoul	Hyundai E&C	Bathtub area and glass glazing	KORESEAL SL825, SL907
Hagye-dong Cheonggu APT	Dobong-gu, Seoul	Cheonggu	Bathtub area and glass glazing	KORESEAL SL825, SL907
Deokso Woosung APT	Namyangju, Gyeonggi-do	Woosung Construction	Bathtub area and glass glazing	KORESEAL SL825, SL907
Oryu-dong Dongbu APT	Guro-gu, Seoul	Dongbu Corp.	Bathtub area and glass glazing	KORESEAL SL825, SL907
Suseo Samsung PC APT	Gangnam-gu, Seoul	Samsung C&T Corp.	Bathtub area and glass glazing	KORESEAL SL825, SL907
Seongsu-dong Ssangyong APT	Seongdong-gu, Seoul	Nam Kwang Engineering	Bathtub area and glass glazing	KORESEAL SL825, SL907
Garibong-dong Doosan APT	Guro-gu, Seoul	Doosan E&C	Bathtub area and glass glazing	KORESEAL SL825, SL907
Hongje-dong Hyundai APT	Seodaemun-gu, Seoul	HDC Hyundai Development Company	Bathtub area and glass glazing	KORESEAL SL825, SL907
Cheongju Hanyang PC APT	Cheongju, Chungcheongbuk-do	Hanyang	Bathtub area and glass glazing	KORESEAL SL825, SL907
Icheon Hanyang PC APT	Icheon, Gyeonggi-do	Hanyang	Bathtub area and glass glazing	KORESEAL SL825, SL907
Hagye-dong Hyundai APT	Dobong-gu, Seoul	HDC Hyundai Development Company	Bathtub area and glass glazing	KORESEAL SL825, SL907
Busan Hyundai APT	Yeonje-gu, Busan	Hyundai E&C	Bathtub area and glass glazing	KORESEAL SL825, SL907
Jung-dong Kumgang PC APT	Bucheon, Gyeonggi-do	Kumgang APT	Bathtub area and glass glazing	KORESEAL SL825, SL907
Garak-dong Ssangyong APT	Songpa-gu, Seoul	Ssangyong E&C	Bathtub area and glass glazing	KORESEAL SL825, SL907
Yeomchang-dong Samsung PC APT	Gangseo-gu, Seoul	Samsung C&T Corp.	Bathtub area and glass glazing	KORESEAL SL825, SL907
Daejeon Kumho PC APT	Yuseong-gu, Daejeon	Kumho E&C	Bathtub area and glass glazing	KORESEAL SL825, SL907
Gunsan Kumho PC APT	Gunsan, Jeollabuk-do	Kumho E&C	Bathtub area and glass glazing	KORESEAL SL825, SL907
Gwangju Kumho PC APT	Gwangsan-gu, Gwangju	Kumho E&C	Bathtub area and glass glazing	KORESEAL SL825, SL907
Ilsan Booyoung APT	Goyang, Gyeonggi-do	Booyoung	Bathtub area and glass glazing	KORESEAL SL825, SL907
Goyang Haengsin Poonglim APT	Goyang, Gyeonggi-do	Poonglim Construction	Bathtub area and glass glazing	KORESEAL SL825, SL907
Goyang Haengsin Daemyeong APT	Goyang, Gyeonggi-do	Daemyeong Housing	Bathtub area and glass glazing	KORESEAL SL825, SL907

# List of References - Other

Construction Project	Location	Construction Firm	Area of Use	Product Used
Daejeon Government Complex III	Seo-gu, Daejeon	Hyundai E&C, etc.	Stone material and window areas	KORESEAL MS942
EXPO Resources Utilization Pavilion	Yuseong-gu, Daejeon	Shinsegi Construction	Stone material and window areas	KORESEAL MS942
Daewoo institute for Advanced Engineering	Yongin, Gyeonggi-do	Daewoo	Stone material and window areas	KORESEAL MS942
Korea Aerospace Research Institute	Yuseong-gu, Daejeon	Hanil Development	Stone material and window areas	KORESEAL MS942
Dong-A Building	Seo-gu, Daegu	Hwasung Industrial	Stone material and window areas	KORESEAL MS942
Seongwon B/D	Gangnam-gu, Seoul	Daelim Industrial	Stone material and window areas	KORESEAL MS942
POSCO Office Building	Pohang, Gyeongsangbuk-do	Samsung Construction	GPC and window areas	KORESEAL MS942
Mapo Dongkuk B/D	Mapo-gu, Seoul	Dongkuk Industries	GPC and window areas	KORESEAL MS942
Bank of Korea Jeonju Branch	Jeonju, Jeollabuk-do.	Kumgang	GPC and window areas	KORESEAL MS942
Gangseo Telephone Office	Yangcheon-gu, Seoul	Hanbo Construction	GPC and window areas	KORESEAL MS942
Intercontinental Hotel	Gangdong-gu, Seoul	Hyundai E&C	GPC and window areas	KORESEAL MS942
Korea Minting, Security Printing and ID Card Operating Corporation	Daedeok, Chungcheongnam-do	Miryoong Construction	GPC and window areas	KORESEAL MS942
Presbyterian Women's Mission Center	Jongno-gu, Seoul	Halla Corp.	GPC and window areas	KORESEAL MS942
Trade Center	Gangnam-gu, Seoul	Daewoo	GPC and window areas	KORESEAL MS942
Hyundai Securities Head Office Building	Yeongdeungpo-gu, Seoul	Hyundai E&C	GPC and window areas	KORESEAL MS942
Hyundai Securities Sanggye-dong Branch	Nowon-gu, Seoul	Hyundai E&C	GPC and window areas	KORESEAL MS942
Gunsan KBS	Gunsan, Jeollabuk-do	Kunyoung E&C	GPC and window areas	KORESEAL MS942
Securities Supervisory Board Office	Yeongdeungpo-gu, Seoul	Dongbu Corp.	GPC and window areas	KORESEAL MS942
Daehan Investment Trust Management	Yeongdeungpo-gu, Seoul	Dongbu Corp.	GPC and window areas	KORESEAL MS942
Asan Hospital	Songpa-gu, Seoul	Hyundai E&C	PC and window areas	KORESEAL MS942
Korea Yakult Office Building	Seocho-gu, Seoul	Dongbu Corp.	Stone material and window areas	KORESEAL MS94
Construction Guarantee	Jeju, Jeju-do	Junghan Engineering Construction	Stone material and window areas	KORESEAL MS94
Electric Construction Guarantee	Gangnam-gu, Seoul	Doosan E&C	Stone material and window areas	KORESEAL MS94:
Occupational Safety and Health Research Institute		Another King	Stone material and window areas	KORESEAL MS94
Gwacheon Citizens' Hall	Gwacheon, Gyeonggi-do	Taeyoung	Stone material and window areas	KORESEAL MS942
Taeyoung Office Building	Mapo-gu, Seoul	Taeyoung	Stone material and window areas	KORESEAL MS942
Petroleum Development Center	Anyang, Gyeonggi-do	KOLON E&C	Stone material and window areas	KORESEAL MS94
Korea Consumer Agency	Seocho-gu, Seoul	Sungjee	Stone material and window areas	KORESEAL MS942
Busan City Hall	Yeonje-gu, Busan	Samsung C&T Corp.	Stone material and window areas	KORESEAL MS942
KOPED Research Center in Yongi	Yongin, Gyeonggi-do	Hanjin Construction	Stone material and window areas	KORESEAL MS94
Cheongsong Pumping-up Electric Power Station		Samsung C&T Corp.	Dam con'c expansion joint	KORESEAL PS921
Incheon International Airport	Yeongjongdo, Incheon	Halla Corp.	Drainage con'c expansion joint	KORESEAL PS921
Uljin Power Plant units 5 and 6	Uljin, Gyeongsangbuk-do	Hyundai Heavy Industries	Water intake/drainage con'c joint	KORESEAL PS921
Tamjin Dam	Tamjin, Jeollanam-do	Shinsung	Dam con'c expansion joint	KORESEAL PS921
Buan Dam	Buan, Jeollanam-do	Kumgang APT	Dam con'c expansion joint	KORESEAL PS921
Namgang Dam	Jinju, Gyeongsangnam-do	Sambu	Dam con'c expansion joint	KORESEAL PS921
		Hyundai E&C		KORESEAL PS921
Miryang Dam Hongbok Dam in Uijeongbu	Miryang, Gyeongsangnam-do	•	Dam con'c expansion joint	KORESEAL PS921
, ,	Uijeongbu, Gyeonggi-do	Jeong-A Industry	Dam con'c expansion joint	
Gumi Sewage Treatment Plant	Gumi, Gyeongsangbuk-do	Hyundai Heavy Industries	Water intake/drainage con'c joint	KORESEAL PS921
Dongducheon Sewage Treatment Plant	Dongducheon, Gyeonggi-do	Kuk Dong E&C	Water intake/drainage con'c joint	KORESEAL PS921
Mungyeong Sewage Treatment Plant	Mungyeong, Gyeongsangbuk-do	Taeyoung	Water intake/drainage con'c joint	KORESEAL PS921
Suyeong Sewage Treatment Plant	Suyeong-gu, Busan	Taeyoung	Water intake/drainage con'c joint	KORESEAL PS921
Yeongjongdo New Port Apron for Maintenance	Yeongjongdo, Incheon	Kumho E&C	Airport runway con'c joints	PU9335
Uljin Airport	Uljin, Gyeongsangbuk-do	Halla Corp.	Airport runway con'c joints	PU9335
Muan Airport	Muan, Jeollanam-do	Kumho E&C	Airport runway con'c joints	PU9335
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Osan Air Field	Osan, Gyeonggi-do	Kuk Dong E&C	Airport runway con'c joints	PU9335
Osan Air Field Cheongju Air Field Yeongjongdo New Airport Air-Side 1	Osan, Gyeonggi-do Cheongju, Chungcheongbuk-do Yeongjongdo, Incheon	Kuk Dong E&C Samhwa Construction Daekyong Ind.	Airport runway con'c joints Airport runway con'c joints Airport runway con'c joints	PU9335 PU9330(L) PS9210(L)



# KCC KORESEAL Project References





- 02. Sarang Church Product Used: SL819 / SL999
- 03. SIFC Hotel Building Product Used : SL820 / SL868 / SL999
- 04. Star Tower in Yeoksam-dong Product Used: SL999 and SL 820



01. Seoul Yeouido Parc1 - Product Used: SL999, SL868, SL820

# KCC KORESEAL Project References



- 01. Hanyang Obiz Tower Product Used: SL819 / SL999
- 02. Kumho Asiana Tower Product Used: SL820 / SL868 / SL999
- 03. Gwanghwamun D Tower Product Used: SL820 / SL868 / SL999
- 04. The Federation of Korean Industries Building Product Used : SL822





05. Suwon I'PARK City Complex II - Product Used: SL868