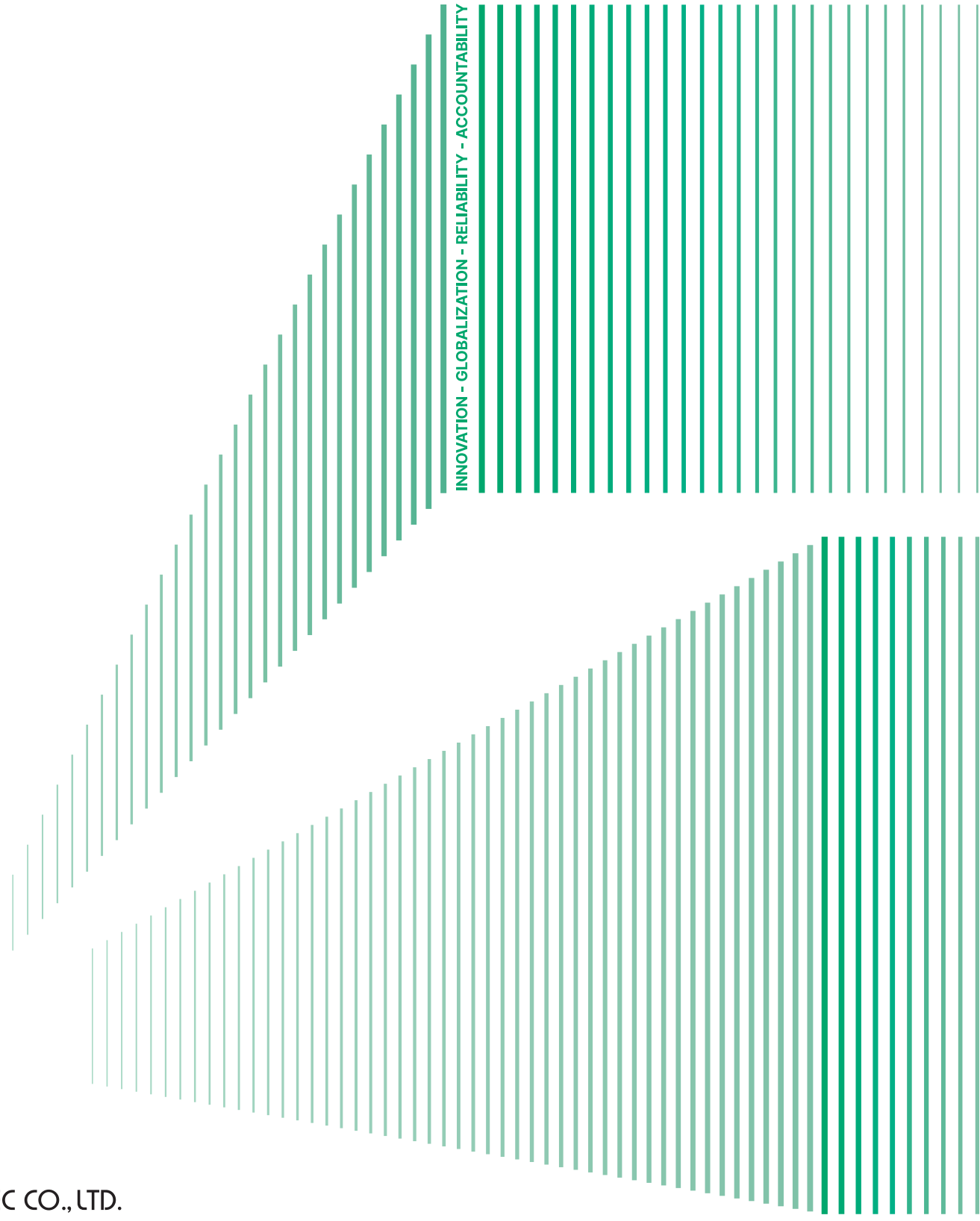
# CONSTRUCTION SEALANTS & ADHESIVES

Creating
A New Future
The Silicone Industry




INNOSPEC CO., LTD.


INNOSPEC

CONSTRUCTION SEALANTS & ADHESIVES

# The New Future of the Sealant Industry,
# INNOSPEC

## Introduction

We are a company striving to become a leader in innovative thinking and global standards. With continuous talent development and dedication, we take full responsibility for our customers and work to earn their trust. Based on this vision, we aim to collaborate with excellent domestic and international partners to lead not only the Korean market but also expand into global markets.

## Our Vision

1 **INNOVATION**

2 **GLOBALIZATION**

3 **RELIABILITY**

4 **ACCOUNTABILITY**

## Business Areas

1. **Manufacturing of Construction Silicone Sealants**
   Structural sealants, exterior sealants, curtain wall sealants, bathroom/kitchen sealants, multipurpose sealants, glazing sealants, fire-resistant sealants, acrylic sealants, anti-fungal sealants (acrylic, fire-resistant, bathroom), interior sealants
2. **Manufacturing of Industrial Silicone Sealants**
   Flow coating / potting sealants, adhesives for various electronic devices
3. **Manufacturing of Sealant Toners** (Silicone Compounding Agents)
4. **Manufacturing of Packaging Cartridges**
5. **Distribution of Silicone and Additives**

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# Recommended Sealants for Various Parts of General Buildings

| Category | | Type | Description | Application | Properties | | |
|---|---|---|---|---|---|---|---|
| | | | | | Product Name | Ingredients | Note |
| Exterior | Curtainwall (Dry) | Structural Silicone Glazing System | Structural | Mullion + Glass<br>Transom + Glass | INNOSEAL 799 | Single-component Silicone | For SSG |
| | | | Exterior | Glass + Glass<br>Panel + Glass | INNOSEAL 792 | Single-component Silicone | General Weather -Resistant Product |
| | | | | | INNOSEAL 988 | | Non-Staining Weather -Resistant Product |
| | | For double-glazed glass | General residential use | Glass + Glass | INNO PAIR SEAL | Single-component Silicone | |
| | | | | | DS 6699 | | |
| | | | | | DGS 3110 | Two-component Silicone | |
| | | Panel System | AL | AL + AL<br>AL + Glass | INNOSEAL 792 | Single-component Silicone | General Weather -Resistant Product |
| | | | Composite Panel | Composite panel + Composite panel<br>Composite panel + AL<br>Composite panel + Glass | | | |
| | | | Metal | Metal + Metal<br>Metal + AL<br>Metal + Glass | INNOSEAL 988 | Single-component Silicone | Non-Staining Silicone Sealant |
| | | PC System (Precast Con'c) | GPC (Stone PC) | GPC + GPC<br>GPC + AL, Metal, Stainless Steel | INNOSEAL 988 | Single-component Silicone | Non-Staining Silicone Sealant |
| | | | Stone | Stone + Stone<br>Stone + AL<br>Stone + AL, Metal, Stainless Steel | | | |
| | | | GRC | GRC + GRC<br>GRC + AL, Metal, Stainless Steel | | | |
| | | | PC | PC + PC<br>PC + AL, Metal, Stainless Steel | | | |
| | | | TPC (TilePC) | TPC + TPC<br>PC + AL, Metal, Stainless Steel | | | |
| | | Stone Panel System | | Stone + Stone<br>Stone + AL, Metal, Stainless Steel<br>Stone + Con'c | | | |
| | | Polycarbonate | | Polycarbonate (Lexan) joint | INNOSEAL 792/799 | Single-component Silicone | |
| | Wet | RC System (Ready Mixed Con'c) | Windows | Con'c + AL, Metal, PL Sash<br>Tile + Brick, Wood | INNOSEAL 1000 | Single-component Silicone | |
| | | | | | DS-7000(N) | Two-component Urethane | Paintable |
| | | | | | INNOSEAL 988 | Single-component Silicone | Non-Staining Silicone Sealant |
| | | | Rooftop | Con'c + Con'c<br>Con'c + Brick<br>Con'c Expansion Joint<br>PC + PC<br>Con'c, PC + Brick | Floor : DS-7000(SL) | Two-component Urethane | SL: Self-Leveling |
| | | | | | Wall : DS-7000(N) | Two-component Urethane | N: General |
| | | | | | INNOSEAL 988 | Single-component Silicone | |

| Category | | Type | Description | Properties | | |
|---|---|---|---|---|---|---|
| | | | | Product Name | Ingredients | Note |
| Interior | High-temperature and high-humidity location | Kitchen Bathroom Restroom | Acrylic Bathtub + Con'c + Tile<br>Marble + Tile, Metal | INNO PREMIUM BIO 707 | Single-component Silicone | Anti-mold/mildew |
| | | | Tile + Con'c + Glass<br>Tile + Con'c + Wood, Metal<br>Sanitary Ware + Tile, Metal | INNOSEAL BIO 707<br>INNO PREMIUM BIO 707 | | |
| | Interior Wall | | Interior PL Door Frame | DS-7000(N) | Two-component Urethane | |
| | | | | INNOSEAL 1000 | Single-component Silicone | |
| | | | | INNOSEAL MS 704 | Single-component Modified Silicone | |
| | | | Interior Door Frame Surround<br>Skirting + Interior Wall | INNOSEAL 386 | Water-based Acrylic | Paintable |
| | | | | PREMIUM INNOSEAL 386 | | |
| | | | Con'c, Base Panel - Base Panel | INNOSEAL 792 | Single-component Silicone | |
| | | | Stone + Stone<br>Stone + AL, Metal, Stainless Steel | INNOSEAL 988 | Single-component Silicone | Non-Staining Silicone Sealant |
| | | | Metal (AL, Metal, Stainless Steel )+Metal (AL, Metal, Stainless Steel) | INNOSEAL 792 | Single-component Silicone | |
| | Heat-resistant area | | Boiler Flue Area and Exhaust Duct Connection Area | INNOSEAL 739 | Single-component Silicone | Heat-Resistant |
| | Fireproof and smoke -resistant zone | Interfloor fire compartment | Curtainwall+Slab | INNOSEAL 1199S | Single-component Silicone | Fireproof |
| | | Cable Tray, Pipe penetration area | Cable + Metal,<br>Con'c, Pipe + Slab / Duct + Wall | INNOSEAL 1199S<br>INNOSEAL 1199A | Single-component Silicone<br>Single-component acrylic | |
| | | Dry Wall | Metal, Gypsum Board Seams | | | |
| Others | | For repairing gaps and cracks in exterior walls | Crack Area, Window repair / Maintenance, Exterior wall, etc. | INNOSEAL MS 704 | Single-component Silicone | Paintable |

# Multi-Family Housing

| Category | Type | Ingredients | Applicable sealing material |
|---|---|---|---|
| Bathroom | Where the wooden door frame meets the tile | Silicone | INNOSEAL BIO 707, INNO PREMIUM BIO 707 |
| | Where the marble sill meets the tile | Silicone | INNOSEAL BIO 707, INNO PREMIUM BIO 707 |
| | Where FRP, enamel, or the bathtub meets the tile | Silicone | INNOSEAL BIO 707, INNO PREMIUM BIO 707 |
| | Where the washbasin meets the tile | Silicone | INNOSEAL BIO 707, INNO PREMIUM BIO 707 |
| | Wall tile corner | Silicone | INNOSEAL BIO 707, INNO PREMIUM BIO 707 |
| | Where the marble sill meets the floor | Silicone | INNOSEAL BIO 707, INNO PREMIUM BIO 707 |
| | Acrylic bathtub | Silicone | INNO PREMIUM BIO 707 |
| Kitchen | Where the door frame and window frame meet | Silicone | INNOSEAL BIO 707, INNO PREMIUM BIO 707 |
| | Where the kitchen furniture ledge meets the tile (lower cabinet) | Silicone | INNOSEAL BIO 707, INNO PREMIUM BIO 707 |
| | Where the kitchen furniture piece meets another furniture piece (lower cabinet) | Silicone | INNOSEAL BIO 707, INNO PREMIUM BIO 707 |
| Balcony | Balcony (exterior, interior) - PVC, AL+Con'c | Silicone, Polyurethane | INNOSEAL 1000, DS 7000(N) |
| | Glass glazing | Silicone | INNOSEAL GP-1, PREMIUM INNOSEAL GP-1 |
| | Where AL/PVC window frame meets the glass | Silicone | PREMIUM INNOSEAL GP-1 |
| | Where the wooden door frame or window frame meets the cement mortar or the exterior of the concrete retaining wall | Polyurethane | DS 7000(N) |
| | Where the masonry plaster wall meets the concrete retaining wall | Polyurethane | DS 7000(N) |
| | Where the CRC meets the framework | Polyurethane | DS 7000(N) |
| | Where the steel door meets the framework | Polyurethane | DS 7000(N) |
| | Fire escape partition | Fireproof sealant | INNOSEAL 1199S |
| Living Room | Art wall tile | Silicone | INNOSEAL GP-1, PREMIUM INNOSEAL GP-1 |
| Bedroom | Gap between the interior wooden door trim and the wall due to poor construction (vertical section) | Silicone | INNOSEAL GP-1, PREMIUM INNOSEAL GP-1 |
| | Gap between the ceiling molding and the wall where the interior wall meets the ceiling | Silicone | INNOSEAL GP-1, PREMIUM INNOSEAL GP-1 |
| Common Area | E/V door; various inspection openings | Silicone | PREMIUM INNOSEAL GP-1 |
| | Junction between framework and masonry | Polyurethane | DS 7000(N) |
| Exterior | Where the masonry plaster wall meets the concrete retaining wall | Polyurethane | DS 7000(N) |
| | Where PC and PC meet | Modified silicone/Polyurethane | INNOSEAL MS 704, DS 7000(N) |
| | Where AL/PVC and PC meets | Silicone | INNOSEAL 988 |
| Rooftop | Expansion joint (concrete or cement mortar) | Polyurethane | DS 7000(SL) |

# INNOSEAL 799

**Structural Silicone Sealant** High performance structural silicone sealant

| | |
|---|---|
| Colors | Grey, Black |
| Packaging Size | 270ml Cartridge |

## FEATURES

- Structural strength suitable for SSG(Structural Sealant Glazing) methods.
- Convenient to use as a single-component.
- Meets industry standards: KS F 4910, ASTM C 1184
- Compliant with the Ministry of Environment's Indoor Air Quality Management Act.
- Excellent heat and cold resistance (retains elasticity within a range of -50 to 150°C after curing).
- Do not use if the material surface temperature is above 50°C.

## APPLICATIONS

- Structural glazing
- PC(Polycarbonate) joints
- Clean rooms
- High-performance silicone sealant


## PROPERTIES

| Before Curing | |
|---|---|
| Curing Type | Alcohol Type |
| Form | Paste |
| Surface Curing Time | 10~30min. (23°C, 50%RH) |
| Full Curing Time | 7~10days |
| Working Temperature Range | 5~40°C (Substrate Temperature) |
| Specific Gravity | 1.33 |

| After Curing | |
|---|---|
| ASTM D2240 (Shore A) | 35~45 |
| ASTM D412 Maximum Tensile Strength | 1.5~2.0 N/mm$^2$ |
| ASTM D412 Maximum Elongation | 500~600% |
| Movement Tolerance | ±25% |

※ The data and figures provided are based on the Company's standard testing specifications and are not intended as guarantees.
※ Adhesion strength may vary depending on the substrate material, so an adhesion test is required on the materials to be used before application.

# INNOSEAL 988

**Weatherseal Silicone Sealant** High-performance, non-staining sealant suitable for stone and porous materials

**Colors** White, Grey, Dark grey, Light grey, Bronze, Dark bronze, Red bronze, Light bronze, Black, Light black, Blue grey, Ivory, Lime green, Red grey (Custom color available for orders over 1,200 EA or more)

**Packaging Size** 270ml Cartridge, 500ml Sausage-type

## FEATURES

- Excellent non-staining for porous materials
- Excellent adhesion to most building materials without primer
- Available in various colors to match exterior material color trends
- Excellent heat and cold resistance (retains elasticity within a range of -50 to 150°C after curing)
- Meets industry standards: KS F 4910, ASTM 1248 (Staining Test)
- Compliant with the Ministry of Environment's Indoor Air Quality Management Act.

## APPLICATIONS

- Stone, porous panel joints
- Curtainwall panel joints requiring non-staining properties
- Weather sealing
- Various interior and exterior joint sealing
- Aluminum (AL) composite panel, enamel panel joint sealing


## PROPERTIES

| Before Curing | |
|---|---|
| Curing Type | Neutral |
| Form | Paste |
| Surface Curing Time | 10~20min. (23°C, 50%RH) |
| Full Curing Time | 7~10days |
| Working Temperature Range | 5~40°C (Substrate Temperature) |
| Specific Gravity | 1.25 |

| After Curing | |
|---|---|
| ASTM D2240 (Shore A) | 30~40 |
| ASTM D412 Maximum Tensile Strength | 1.3~1.8 N/mm$^2$ |
| ASTM D412 Maximum Elongation | 550~750% |
| Movement Tolerance | ±25% |

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※ Adhesion strength may vary depending on the substrate material, so an adhesion test is required on the materials to be used before application.

# INNOSEAL 792

**Weatherseal Silicone Sealant** Exterior Sealant with Excellent Adhesion

**Colors** Transparent, White, Grey, Bronze, Black, Green (Custom colors available for orders of 2,000 EA or more)

**Packaging Size** 270ml Cartridge, 500ml Sausage-type

## FEATURES

- Outstanding for Lexan (polycarbonate) sealing
- Excellent heat and cold resistance (retains elasticity within a range of -50 to 150°C after curing)
- Excellent adhesion to a variety of materials including Lexan, metal, and plastic without the need for a primer
- Meets industry standards: KS F 4910
- Compliant with the Ministry of Environment's Indoor Air Quality Management Act.
- Excellent weather resistance and chemical resistance

## APPLICATIONS

- Exterior panels, fluoropolymer coating, enamel panels
- Lexan (Polycarbonate) sealing
- Aluminum (AL) curtainwall panel joints
- Window and door frame joint sealing
- Adhesion to metal, plastic, wood, dryvit, and other materials
- Weather sealing


## PROPERTIES

| Before Curing | |
|---|---|
| Curing Type | Neutral |
| Form | Paste |
| Surface Curing Time | 10~30min. (23°C, 50%RH) |
| Full Curing Time | 7~10days |
| Working Temperature Range | 5~40°C (Substrate Temperature) |
| Specific Gravity | 1.36 |

| After Curing | |
|---|---|
| ASTM D2240 (Shore A) | 25~35 |
| ASTM D412 Maximum Tensile Strength | 1.3~1.8 N/mm$^2$ |
| ASTM D412 Maximum Elongation | 500~600% |
| Movement Tolerance | ±25% |

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※ Adhesion strength may vary depending on the substrate material, so an adhesion test is required on the materials to be used before application.

# INNOSEAL 1000

**Window perimeter Silicone Sealant** High-Elongation Silicone Sealant for Window perimeter

**Colors** White, Grey, Black, Bronze, Ivory

**Packaging Size** 270ml Cartridge, 500ml Sausage-type

## FEATURES

- High-elongation window perimeter silicone sealants
- Product covered by Patent No. 0477356 (Improved antimicrobial properties)
- Excellent heat and cold resistance (retains elasticity in the range of -50 to 150°C after curing)
- Adhesion to various materials without the need for a primer
- Compliant with the Ministry of Environment's Indoor Air Quality Management Act.

## APPLICATIONS

- Sealing around the exterior window frame inside the veranda (PVC/aluminum/wood + concrete)
- Architectural exterior material joint sealing
- Civil engineering joint sealing where elasticity is required


## PROPERTIES

| Before Curing | |
|---|---|
| Curing Type | Neutral |
| Form | Paste |
| Surface Curing Time | 15~30min. (23°C, 50%RH) |
| Full Curing Time | 7~10days |
| Working Temperature Range | 5~40°C (Substrate Temperature) |
| Specific Gravity | 1.36 |

| After Curing | |
|---|---|
| ASTM D2240 (Shore A) | 25~35 |
| ASTM D412 Maximum Tensile Strength | 1.3~1.8 N/mm$^2$ |
| ASTM D412 Maximum Elongation | 500~600% |
| Movement Tolerance | ±25% |

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※ Adhesion strength may vary depending on the substrate material, so an adhesion test is required on the materials to be used before application.

# INNOSEAL MS 704

**Modified Silicone(Hybrid sealant)** Single-Component Modified Silicone Sealant with Excellent Paint Coating

**Colors** White, Grey, Green (Custom colors available)

**Packaging Size** 270ml Cartridge, 500ml Sausage-type

## FEATURES

- Modified (MS) silicone sealant free from contamination by silicone plasticizers
- Suitable for expansion joint sealing due to low modulus characteristics
- Paintable (Note: Painting issues such as poor adhesion or discoloration may occur depending on the type of paint and application method, so please test before application.)
- Excellent weather resistance, durability, and ozone resistance
- Compliant with the Ministry of Environment's Indoor Air Quality Management Act.

## APPLICATIONS

- Concrete crack repair for urethane waterproofing (primer recommended)
- Sealing around interior/ exterior window frames (primer recommended)
- Sealing stone and panel joints (primer recommended)
- Sealing urethane adhesive areas
- Joint sealing where nonstaining properties are required


## PROPERTIES

| Before Curing | |
|---|---|
| Curing Type | Neutral |
| Form | Paste |
| Surface Curing Time | 20~40min. (23°C, 50%RH) |
| Full Curing Time | 7~10days |
| Working Temperature Range | 5~40°C (Substrate Temperature) |
| Specific Gravity | 1.4 |

| After Curing | |
|---|---|
| ASTM D2240 (Shore A) | 25~35 |
| ASTM D412 Maximum Tensile Strength | 0.8~1.2 N/mm$^2$ |
| ASTM D412 Maximum Elongation | 250~450% |
| Movement Tolerance | ±25% |

※ The data and figures provided are based on the Company's standard testing specifications and are not intended as guarantees.
※ Adhesion strength may vary depending on the substrate material, so an adhesion test is required on the materials to be used before application.

# PREMIUM INNOSEAL GP-1

**Silicone Sealant for Glazing** Premium Glazing Silicone Sealant with Excellent Workability and Adhesion

**Colors** Transparent, White, Grey, Bronze, Black, Green, Light ivory, Ivory, Cherry, Red, Gold, Translucent, Light grey, Dark grey, Walnut, Light blue, Blue, Dark blue, Light wood, Wood, Oak, Dark gold, Aluminium (Custom colors available for orders of 2,000 EA or more.)

**Packaging Size** 270ml Cartridge

## FEATURES

- Neutral curing type, free from corrosion and odor
- Multipurpose Use: Excellent adhesion to various materials such as wood, plastic, aluminum (AL), and concrete (Not suitable for fluoropolymer coatings)
- Excellent workability, weather resistance
- Meets Industry Standards (KS F 4910)
- Compliant with the Ministry of Environment's Indoor Air Quality Management Act.
- Fast drying speed
- Applicable temperature: -48~150°C

## APPLICATIONS

- Glass and Sash Glazing(Plastic + Glass)
- Standard Sash Glazing
- Wood Window Frame Glazing
- Cleanroom Joint Sealing


## PROPERTIES

| Before Curing | |
|---|---|
| Curing Type | Neutral |
| Form | Paste |
| Surface Curing Time | 10~30min. (23°C, 50%RH) |
| Full Curing Time | 7~10days |
| Working Temperature Range | 5~40°C (Substrate Temperature) |
| Specific Gravity | 1.36 |

| After Curing | |
|---|---|
| ASTM D2240 (Shore A) | 25~35 |
| ASTM D412 Maximum Tensile Strength | 1.3~1.8 N/mm$^2$ |
| ASTM D412 Maximum Elongation | 500~600% |
| Movement Tolerance | ±25% |

※ The data and figures provided are based on the Company's standard testing specifications and are not intended as guarantees.
※ Adhesion strength may vary depending on the substrate material, so an adhesion test is required on the materials to be used before application.

# INNOSEAL GP-1

**Silicone Sealant for Glazing** Non-Acidic Silicone Sealant with Excellent Workability and Adhesion

**Colors** Transparent, White, Grey, Bronze, Black, Green, Light ivory, Ivory, Cherry, Red, Gold, Translucent, Light grey, Dark grey, Walnut, Light blue, Blue, Dark blue, Light wood, Oak, Dark gold (Custom colors available for orders of 2,000 EA or more.)

**Packaging Size** 270ml Cartridge

## FEATURES

- Neutral curing type, free from corrosion and odor
- Multipurpose Use: Excellent adhesion to various materials such as wood, plastic, aluminum (AL), and concrete (not suitable for fluoropolymer coatings)
- Excellent workability
- Meets Industry Standards (KS F 4910)
- Applicable Temperature: -48~150°C

## APPLICATIONS

- Sash Glazing (Plastic + Glass)
- Aluminum (AL) Sash Glazing
- Wood window frame glazing
- Joint caulking for building materials with minimal movement
- Not for use with fluoropolymer coatings
- Not for use in structural methods or double-glazed glass production (Avoid contact with butyl)
- Not for submersion in water


## PROPERTIES

| Before Curing | |
|---|---|
| Curing Type | Neutral |
| Form | Paste |
| Surface Curing Time | 15~20min. (23°C, 50%RH) |
| Full Curing Time | 7~10days |
| Working Temperature Range | 5~40°C (Substrate Temperature) |
| Specific Gravity | 1.4 |

| After Curing | |
|---|---|
| ASTM D2240 (Shore A) | 25~30 |
| ASTM D412 Maximum Tensile Strength | 0.8~1.3 N/mm$^2$ |
| ASTM D412 Maximum Elongation | 300~400% |
| Movement Tolerance | ±12.5% |

※ The data and figures provided are based on the Company's standard testing specifications and are not intended as guarantees.
※ Adhesion strength may vary depending on the substrate material, so an adhesion test is required on the materials to be used before application.

# INNOSEAL BIO 707

## Silicone Sealant for Bathroom

Anti-mold/mildew Bio Silicone Sealant for Bathrooms and Kitchens

| | |
|---|---|
| Colors | Transparent,Translucent, White, Ivory (Custom colors available for orders of 2,000 EA or more) |
| Packaging Size | 270ml Cartridge |

### FEATURES

- Neutral type with no odor, making it easy to work in bathrooms
- Contains antifungal agents, suitable for hightemperature and high-humidity environments
- Excellent adhesion to most bathroom materials and fast curing (excluding acrylic bathtubs)
- Meets Industry Standards (KS F 4910)
- Compliant with the Ministry of Environment's Indoor Air Quality Management Act.
- Applicable Temperature: -48~150°C

### APPLICATIONS

- Around bathtubs and sinks in bathrooms
- Tile and sink joints
- High-temperature and high humidity areas such as sanitary ware
- Fungal-resistant areas in hospitals, food and pharmaceutical processes.


### PROPERTIES

| Before Curing | |
|---|---|
| Curing Type | Neutral |
| Form | Paste |
| Surface Curing Time | 10~20min. (23°C, 50%RH) |
| Full Curing Time | 5~7days |
| Working Temperature Range | 5~40°C (Substrate Temperature) |
| Specific Gravity | 1.00 |

| After Curing | |
|---|---|
| ASTM D2240 (Shore A) | 20~30 |
| ASTM D412 Maximum Tensile Strength | 1.0~1.5 N/mm$^2$ |
| ASTM D412 Maximum Elongation | 400~500% |
| Movement Tolerance | ±25% |

※ The data and figures provided are based on the Company's standard testing specifications and are not intended as guarantees.
※ Adhesion strength may vary depending on the substrate material, so an adhesion test is required on the materials to be used before application.

# PREMIUM INNOSEAL 386

**High-Elasticity Acrylic Sealant** Acrylic Sealant with High Elasticity and High Performance

**Colors** White, Grey

**Packaging Size** 270ml Cartridge

## FEATURES

- High-elasticity water-based acrylic sealant
- Paintable (Note: Painting may not be possible depending on the type of paint and application method, so please test before application.)
- Applicable in temporarily humid areas
- Excellent corrosion resistance and alkali resistance
- Water-based, with minimal odor and toxicity
- Easy to use for repair work
- Compliant with the Ministry of Environment's Indoor Air Quality Management Act.

## APPLICATIONS

- Crack repair and sealing for porous materials and surfaces
- Sealing interior joints with minimal movement, such as walls and ceilings
- Sealing and soundproofing of joints
- Interior joint sealing for apartments, offices and other similar spaces


## PROPERTIES

| Before Curing | |
|---|---|
| Curing Type | Drying and curing (water-based acrylic) |
| Form | Paste |
| Surface Curing Time | Within 200min. (23°C, 50%RH) |
| Full Curing Time | 14~28days |
| Working Temperature Range | 5~40°C (Substrate Temperature) |
| Specific Gravity | 1.6 |

| After Curing | |
|---|---|
| ASTM D2240 (Shore A) | 30~40 |
| ASTM D412 Maximum Tensile Strength | 1.0~1.3 N/mm$^2$ |
| ASTM D412 Maximum Elongation | 200~300% |

※ The data and figures provided are based on the Company's standard testing specifications and are not intended as guarantees.
※ Adhesion strength may vary depending on the substrate material, so an adhesion test is required on the materials to be used before application.

# INNOSEAL 386

**Acrylic Sealant** Water-Based Acrylic Sealant that is Odorless and Non-Toxic

**Colors** White, Grey (Custom colors available for orders of 2,000 EA or more)

**Packaging Size** 270ml Cartridge

## FEATURES

- Paintable (Note: Painting may not be possible depending on the type of paint and application method, so please test before application.)
- Applicable in temporarily humid areas
- Excellent corrosion resistance and alkali resistance
- Water-based, with minimal odor and toxicity
- Easy to use for repair work
- Compliant with the Ministry of Environment's Indoor Air Quality Management Act.

## APPLICATIONS

- Repair of porous materials such as concrete, stone, and plaster
- Sealing and filling of joints inside buildings
- Sealing of joints with minimal movement
- Sealing gypsum board joints in apartments, offices and other indoor spaces


## PROPERTIES

| Before Curing | |
|---|---|
| Curing Type | Drying and curing (water-based acrylic) |
| Form | Paste |
| Surface Curing Time | Within 200min. (23°C, 50%RH) |
| Full Curing Time | 14~28days |
| Working Temperature Range | 5~40°C (Substrate Temperature) |
| Specific Gravity | 1.6 |

| After Curing | |
|---|---|
| ASTM D2240 (Shore A) | 30~40 |
| ASTM D412 Maximum Tensile Strength | 0.1~0.3 N/mm$^2$ |
| ASTM D412 Maximum Elongation | 100~200% |
| Movement Tolerance | ±12.5% |

※ The data and figures provided are based on the Company's standard testing specifications and are not intended as guarantees.
※ Adhesion strength may vary depending on the substrate material, so an adhesion test is required on the materials to be used before application.

# INNO PAIR SEAL

## Silicone Sealant for Double-Glazed Glass

Easy to use Single-Component Silicone Sealant for Double-Glazed Glass

**Colors** White, Black

**Packaging Size** 500ml Sausage-type

### FEATURES

- Quick curing time facilitates next-day shipping
- Convenient to use as a single-component product with minimal waste
- Sausage-type packaging reduces post-use waste like empty containers
- Excellent adhesion to glass and aluminum (spacers)
- Outstanding heat and cold resistance (retains elasticity in the range of -50 to 150°C after curing)
- Compliant with the Ministry of Environment's Indoor Air Quality Management Act.

### APPLICATIONS

- For secondary sealing of general residential double glazed glass

※ Not suitable for use as a second sealant for structural double-glazed glass.

※ Use in conjunction with primary sealant, such as butyl (polyisobutylene).


### PROPERTIES

| Before Curing | |
|---|---|
| Curing Type | Neutral |
| Form | Paste |
| Surface Curing Time | 10~20min. (23°C, 50%RH) |
| Full Curing Time | 3~5days |
| Working Temperature Range | 5~40°C (Substrate Temperature) |
| Specific Gravity | 1.37 |

| After Curing | |
|---|---|
| ASTM D2240 (Shore A) | 30~40 |
| ASTM D412 Maximum Tensile Strength | 0.9~1.4 N/mm$^2$ |
| ASTM D412 Maximum Elongation | 400~600% |
| Movement Tolerance | ±25% |

※ The data and figures provided are based on the Company's standard testing specifications and are not intended as guarantees.

※ Adhesion strength may vary depending on the substrate material, so an adhesion test is required on the materials to be used before application.

# DS 6699

## Silicone Sealant for Double-Glazed Glass

Easy to use and Economical Single-Component Sealant Supplied with a Drum Pump to Enhance Convenience in Double-Glazed Glass Production

**Colors** Black, White

### FEATURES

- Quick curing time
- Easy to use as a single-component product
- Excellent adhesion to glass and aluminum (spacers)
- Excellent weather resistance
- Excellent ozone and UV resistance
- Suitable for all seasons
- Applicable Temperature: -48~150°C

- Cost savings due to minimal sealant waste

This eliminates sealant loss that can occur with the operation of pumps used for two-component poly-sulfide (Thiokol) or polyurethane sealants. Compared to sausage-type or cartridge-filled sealants, it significantly reduces the cost of purchasing sealant.

- Time and workforce savings

Using the sealant dispenser attached to the pump for direct filling avoids the dual time waste of transferring sealant to a separate filling gun for caulking. The pump is easy to operate, requires no cleaning before or after use, and does not generate maintenance issues,

### APPLICATIONS

- For secondary sealing of residential double-glazed glass ※ Not suitable for structural use.

### PROPERTIES

| Before Curing | |
|---|---|
| Curing Type | Neutral |
| Form | Paste |
| Surface Curing Time | 20~30min. (23°C, 50%RH) |
| Full Curing Time | 3~5days |
| Working Temperature Range | 5~40°C (Substrate Temperature) |
| Specific Gravity | 1.37 |

| After Curing | |
|---|---|
| ASTM D2240 (Shore A) | 30~40 |
| ASTM D412 Maximum Tensile Strength | 1.0~1.5 N/mm$^2$ |
| ASTM D412 Maximum Elongation | 400~600% |

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# DSG 3110

## Silicone Sealant for Double-Glazed Glass(2-Part)

Adjustable Curing Speed, Excellent Weather Resistance and Durability, Minimized Losses by Delaying Initial Curing Time to Reduce Sealant Consumption During Work Breaks

### FEATURES

- Excellent adhesion to glass, aluminum, and galvanized steel spacers
- Excellent extrusion speed even at low pump pressure
- Excellent filling and tooling
- Reduces unnecessary sealant consumption during work breaks, leading to cost savings
- Improved slip resistance reduces risks during work
- Excellent heat and cold resistance (retains elasticity in the range of -50 to 150°C after curing)

### APPLICATIONS

- For Secondary Sealing of Residential Double-glazed Glass

※ Not suitable for structural use.

### PROPERTIES

| Before Curing | |
|---|---|
| Base | Color-White |
| Specific Gravity | 1.38 |
| Curing Agent | Color-Black |
| Specific Gravity | 1.20 |
| Mixing Ratio by Weight | (Base: Curing Agent) 1:10 |
| Working Temperature Range | 5~40°C |

| After Curing | |
|---|---|
| ASTM D2240 (Shore A) | 35~45 |
| ASTM D412 Maximum Tensile Strength | 1.0~1.5 N/mm$^2$ |
| ASTM D412 Maximum Elongation | 320% |
| Movement Tolerance | 60~80min |

※ The data and figures provided are based on the Company's standard testing specifications and are not intended as guarantees.
※ Adhesion strength may vary depending on the substrate material, so an adhesion test is required on the materials to be used before application.

# INNOSEAL 1199MS

## Fire-Resistant Modified Sealant

Excellent Fire-Resistant Modified Sealant That Delivers Effective Performance in Fire-Rated Areas

**Colors** Black, Grey

**Packaging Size** 270ml Cartridge

### FEATURES

- Excellent fire-resistant performance
- Paintable (Note: Painting issues such as poor adhesion or discoloration may occur depending on the type of paint and application method, so please test before application.)
- Meets Industry Standards (KS F 4910)

※ Compliant with the performance standards for fire-resistant filling structures as specified by the Ministry of Land, Infrastructure and Transport (for details, refer to the test report).

### APPLICATIONS

- Areas requiring fire resistance, waterproofing, moisture resistance, and dust protection
- Sealing penetrations for wiring, exhaust ducts, and conduit pipes
- Reinforcement of power facilities such as power plants and substations
- Joint sealing in fire-rated zones of various buildings
- Sealing penetrations for pipes and electrical cables
- Emergency exit covers


### PROPERTIES

| Before Curing | |
|---|---|
| Curing Type | Neutral |
| Form | Paste |
| Surface Curing Time | 10~30min. (23°C,50%RH) |
| Full Curing Time | 15days |
| Working Temperature Range | 5~40°C (Substrate Temperature) |
| Specific Gravity | 1.6 |

| After Curing | |
|---|---|
| ASTM D2240 (Shore A) | 30~40 |
| ASTM D412 Maximum Tensile Strength | 1.4~1.8 N/mm2 |
| ASTM D412 Maximum Elongation | 250~450% |
| Movement Tolerance | ±25% |

※ The data and figures provided are based on the Company's standard testing specifications and are not intended as guarantees.
※ Adhesion strength may vary depending on the substrate material, so an adhesion test is required on the materials to be used before application.

# INNOSEAL 1199S

**Fire-Resistant Silicone** Excellent Fire-Resistant Sealant that Delivers Effective Performance in Fire-Rated Areas

**Colors** Grey, Black

**Packaging Size** 270ml Cartridge

## FEATURES

- Exceptional fire resistance, waterproofing, moisture resistance, and soundproofing performance
- Adheres to various materials without the need for a primer
- Outstanding durability with excellent sealing even during expansion and contraction
- Meets Industry Standards (KS F 4910)
  ※ Compliant with the performance standards for fire-resistant filling structures as specified by the Ministry of Land, Infrastructure and Transport (for details, refer to the test report)
- Compliant with the Ministry of Environment's Indoor Air Quality Management Act.

## APPLICATIONS

- waterproofing, moisture resistance, dust protection, and soundproofing
- Sealing penetrations for wiring, exhaust ducts, and conduit pipes
- Reinforcement of power facilities such as power plants and substations
- Joint sealing in fire-rated zones of various buildings
- Sealing penetrations for pipes and
- electrical cables
- Emergency exit covers


## PROPERTIES

| Before Curing | |
|---|---|
| Curing Type | Neutral |
| Form | Paste |
| Surface Curing Time | 5~10min. (23°C, 50%RH) |
| Full Curing Time | 7~15days |
| Working Temperature Range | 5~40°C (Substrate Temperature) |
| Specific Gravity | 1.34 |

| After Curing | |
|---|---|
| ASTM D2240 (Shore A) | 40~50 |
| ASTM D412 Maximum Tensile Strength | 1.8~2.3 N/mm2 |
| ASTM D412 Maximum Elongation | 300~500% |
| Movement Tolerance | ±25% |

※ The data and figures provided are based on the Company's standard testing specifications and are not intended as guarantees.
※ Adhesion strength may vary depending on the substrate material, so an adhesion test is required on the materials to be used before application.

# INNOSEAL 1199A

**Fire-Resistant Acrylic** Excellent Fire-Resistant Acrylic Sealant that Delivers Effective Performance in Fire-Rated Areas

**Colors** Grey, Black

**Packaging Size** 270ml Cartridge

## FEATURES

- Excellent fire-resistant performance
- Paintable(Note: Painting issues such as poor adhesion or discoloration may occur depending on the type of paint and application method, so please test before application.)
- Adheres to various materials without the need for a primer
- Water-Based
- Meets Industry Standards (KS F 4910)
  ※ Compliant with the performance standards for fire-resistant filling structures as specified by the Ministry of Land, Infrastructure and Transport (for details, refer to the test report)
- Compliant with the Ministry of Environment's Indoor Air Quality Management Act.

## APPLICATIONS

- Sealing penetrations for wiring, exhaust ducts, and conduit pipes
- Reinforcement of power facilities such as power plants and substations
- Joint sealing in fire-rated zones of various buildings
- Sealing penetrations for pipes and electrical cables
- Sealing of electrical rooms, computer rooms, laboratories, etc.


## PROPERTIES

| Before Curing | |
|---|---|
| Curing Type | Drying and curing (water-based acrylic) |
| Form | Paste |
| Surface Curing Time | 10~40min. (23°C, 50%RH) |
| Full Curing Time | 14~15days |
| Working Temperature Range | 5~40°C (Substrate Temperature) |
| Specific Gravity | 1.5 |

| After Curing | |
|---|---|
| ASTM D2240 (Shore A) | 30~40 |
| ASTM D412 Maximum Tensile Strength | 0.8~1.0 N/mm2 |
| ASTM D412 Maximum Elongation | 250~300% |
| Movement Tolerance | ±12.5% |

※ The data and figures provided are based on the Company's standard testing specifications and are not intended as guarantees.
※ Adhesion strength may vary depending on the substrate material, so an adhesion test is required on the materials to be used before application.

# INNOSEAL 739

**Heat-Resistant Silicone** High-Performance Acrylic Sealant with Excellent Elasticity for Areas Requiring High Temperatures, such as Boilers and Heaters

**Colors** Grey, Red **Packaging Size** 270ml Cartridge

## FEATURES

- Usable continuously from -55°C to 260°C
- Intermittently usable up to 310°C
- Bonds to various materials such as metal, glass, and plastic without the need for a primer
- Excellent weather resistance and chemical resistance
- Superior electrical properties
- Compliant with the Ministry of Environment's Indoor Air Quality Management Act.

## APPLICATIONS

- Boilers, heaters, oven belts, industrial ovens
- Insulation for motor, transformer, and other entry and exit ports
- Flange sealing for outdoor equipment
- Engine rotation seals for automobiles and ships
- Airtight seals for waterproofing and soundproofing instruments
- General adhesion for metals, glass, plastics, and wood


## PROPERTIES

| Before Curing | |
|---|---|
| Curing Type | Neutral |
| Form | Paste |
| Surface Curing Time | 10~40min. (23°C, 50%RH) |
| Full Curing Time | 3~7days |
| Working Temperature Range | 5~40°C (Substrate Temperature) |
| Specific Gravity | 1.25 |

| After Curing | |
|---|---|
| ASTM D2240 (Shore A) | 30~40 |
| ASTM D412 Maximum Tensile Strength | 1.7~2.2 N/mm$^2$ |
| ASTM D412 Maximum Elongation | 400~600% |
| Movement Tolerance | ±25% |

※ The data and figures provided are based on the Company's standard testing specifications and are not intended as guarantees.
※ Adhesion strength may vary depending on the substrate material, so an adhesion test is required on the materials to be used before application.

# INNOSEAL 221

**Liquid Flowable Silicone** Flowable Silicone Sealant with Excellent Workability and Electrical Insulation Properties

**Colors** Translucent **Packaging Size** 270ml Cartridge

## FEATURES

- Quick curing time
- Excellent workability
- Excellent weather resistance
- Applicable Temperature: -48~150°C
- Excellent flowability

## APPLICATIONS

- Adhesion and sealing of electrical and electronic components
- Sealing for refrigeration, freezing, and air conditioning equipment
- Joint sealing for automotive, marine, rail, and chassis components


## PROPERTIES

| Before Curing | |
|---|---|
| Curing Type | Neutral |
| Form | Flowable Liquid |
| Surface Curing Time | 5~30min. (23°C, 50%RH) |
| Full Curing Time | 5~7days |
| Working Temperature Range | 5~40°C (Substrate Temperature) |
| Specific Gravity | 1.0 |

| After Curing | |
|---|---|
| ASTM D2240 (Shore A) | 5~15 |
| ASTM D412 Maximum Tensile Strength | 0.4~1.0N/mm$^2$ |
| ASTM D412 Maximum Elongation | 200~400% |
| ASTM D257 Volume Resistance | 4.84 x $10^{15}$Ωcm |
| ASTM C149 Dielectric breakdown strength | 18.3KV/mm |
| ASTM D150 Permittivity | 3.70 F/m (100Hz) |
| Thermal Conductivity (Hot Wire) | 0.286w/(m·k) |

※ The data and figures provided are based on the Company's standard testing specifications and are not intended as guarantees.
※ Adhesion strength may vary depending on the substrate material, so an adhesion test is required on the materials to be used before application.

# SUPER GLUE SPEED

**Fast-Curing Modified Sealant** Excellent Fast-Curing Modified Sealant that Delivers Superior Adhesion Performance to a Variety of Materials

**Colors** White **Packaging Size** 270ml Cartridge

## FEATURES

- Fast curing time
- Non-contaminating
- Paintable (Note: Painting issues such as poor adhesion or discoloration may occur depending on the type ofpaint and application method, so please test before application.)

## APPLICATIONS

- Interior and exterior crack repair
- Adhesion to various materials such as stone, panels, PVC tiles, and ceramics


## PROPERTIES

| Before Curing | |
|---|---|
| Curing Type | Neutral |
| Form | Paste |
| Surface Curing Time | 10~20min. (23°C, 50%RH) |
| Full Curing Time | 7~15days |
| Working Temperature Range | 5~40°C (Substrate Temperature) |
| Specific Gravity | 1.50±0.02 |

| After Curing | |
|---|---|
| ASTM D2240 (Shore A) | 55~65 |
| ASTM D412 Maximum Tensile Strength | 1.5~2.0 N/mm$^2$ |
| ASTM D412 Maximum Elongation | 200~250% |

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# GLITTER SEALANT

**Dedicated to Luxury Interior Decoration** Glitter Silicone for Luxury Interior Decoration

**Colors** Gold Glitter Silver Glitter White Glitter

## FEATURES

- Specifically designed for luxury interior decoration with exceptional aesthetic appeal
- Excellent weather resistance, heat resistance, and water resistance

## APPLICATIONS

- Dedicated to luxury interior decoration
- Around bathtubs and sinks in bathrooms
- Areas around sanitary ware in high -temperature and high-humidity environments
- Tile and sink joints
- Interior molding
- Gold, silver, white pearl


## PROPERTIES

| Before Curing | |
|---|---|
| Curing Type | Neutral |
| Form | Paste |
| Surface Curing Time | 10~20min (23°C, 50%RH) |
| Full Curing Time | 7~10days |
| Working Temperature Range | 5~40°C (Substrate Temperature) |
| Specific Gravity | 1.02 |

※ The data and figures provided are based on the Company's standard testing specifications and are not intended as guarantees.
※ Adhesion strength may vary depending on the substrate material, so an adhesion test is required on the materials to be used before application.

# Other Item List

## Nozzle

| Sausage Nozzle 16mm,20mm | Standard Nozzle | Multi-Type Sausage Nozzle | Wide Nozzle | Modified Nozzle | Funnel Nozzle |
|---|---|---|---|---|---|

## Spatula

| Steel spatula (Large, Medium, Small, Mini) | Bamboo Spatula (Large, Medium, Small, Mini) | Professional Spatula |
|---|---|---|
| 30EA/BOX | 50EA/BOX | |

## Plastic Gun

**One-Cutting Special Gun**
30EA/BOX

**Fischer Young Half-Moon Gun**
30EA/BOX

**P-Special Gun**
30EA/BOX

## Power Gun

**Fischer Young Steel Gun**
30EA/BOX

**Ultra Rotating Gun**
15EA/BOX

**Super Power Rotating Gun**
20EA/BOX

## Masking Tape

**Winter**
: 15mm X 80EA

**Summer**
: 15mm X 80EA

## Urethane Caulking Gun

**Urethane Caulking Gun**
(500ml, 600ml)

## Urethane Foam Gun

**Foam Gun 33208 Fischer**

**Super Power Foam Gun**

**DAWOO Foam Gun 100**
(Standard)

**DAWOO Foam Gun Pro**
(Premium)

## Sausage Gun

**Pneumatic Power Sausage Gun**

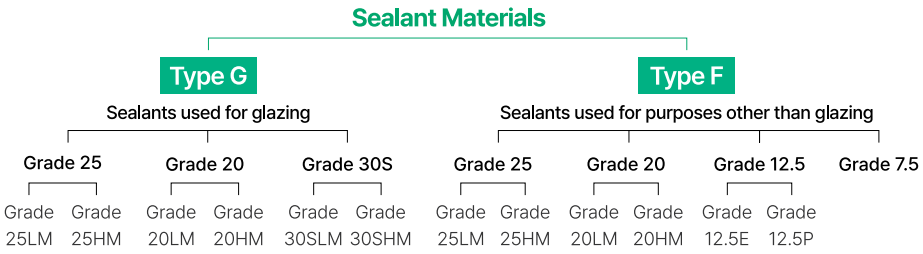
**Handy Sausage Gun**
(P-Type, M-Type)

# KS F 4910 Standards

## Types of Sealants

| Grade | Enlargement/Reduction Ratio % of Joint Width in Testing | Behavioral Tracking % |
|---|---|---|
| 25 | ±25.0 | 25 |
| 20 | ±20.0 | 20 |
| 12.5 | ±12.5 | 12.5 |
| 7.5 | ±7.5 | 7.5 |
| 30S | Bidirectional 30.0[a] | 30[a] |

※ a) Indicates shear deformation relative to the joint width.




## Sealant Performance

### ❶ Type G Grades

| Properties | | | Grade | | | | | | Test Method KS F 2621 |
|---|---|---|---|---|---|---|---|---|---|
| | | | 25LM | 25HM | 20LM | 20HM | 30SLM | 30SHM | |
| Slump | mm | Vertical Ratio | 3 or less | | | | | | 4.1[a] |
| | | Horizontal Ratio | 3 or less | | | | | | |
| Elastic Recovery | | % | 60 or more | | | | | | 4.2[a] |
| Tensile Characteristics | Extension Ratio of Joint Width[b] | % | 200($M_{100}$) | | 160($M_{60}$) | | | | 4.3[a] |
| | Tensile Stress N/mm² | 23°C | 0.4 or less | 0.4 exceeding[c] | 0.4 or less | 0.4 exceeding[c] | 0.4 or less | 0.4 exceeding[c] | |
| | | -20°C | 0.6 or less | 0.6 exceeding[c] | 0.6 or less | 0.6 exceeding[c] | 0.6 or less | 0.6 exceeding[c] | |
| Adhesion under Constant Extension | | | Should not be failed[d]. | | | | | | 4.4[a] |
| Adhesion after Compression Heating and Tensile Cooling | | | Should not be failed[e]. | | | | | | 4.5[a] |
| Adhesion after Artificial Light Exposure | | | Should not be failed[d]. | | | | | | 4.7[a] |
| Adhesion under Constant Extension after Immersion in Water | | | Should not be failed[d]. | | | | | | 4.8[a] |
| Compression Stress | | N/mm² | Report the results of the test. | | | | | | 4.10[a] |
| Volume Loss | | % | 10 or less | | | | | | 4.11[a] |

a) Testing conditions should follow to section 7.
b) The extension ratio of the joint width is based on an initial joint width of 100%, so 200% represents a joint width of 24.0 mm, and 160% represents a joint width of 19.2 mm. Meanwhile, the tensile stress at extension ratio of 200% or 160% is equivalent to the tensile stress at extension ratio of 100% or 60%, respectively. These can be referred to as 100% tensile stress or 60% tensile stress, and abbreviated as M100 or M60.
c) For this grade, any value meeting 23°C or -20°C is acceptable.
d) Failure conditions should follow section 7.1(c).
e) Failure conditions should follow section 7.1(d).

### ❷ Type F Grades

| Properties | | | Grade | | | | | | | Test Method KS F 2621 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 25LM | 25HM | 20LM | 20HM | 12.5E | 12.5P | 7.5 | |
| Slump | mm | Vertical Ratio | 3 or less | | | | | | | 4.1[a] |
| | | Horizontal Ratio | 3 or less | | | | | | | |
| Elastic Recovery | | % | 70 or more | | 60 or more | | 40 or more | 40 or more | - | 4.2[a] |
| Tensile Characteristics | Extension Ratio of Joint Width[b] | % | 200($M_{100}$) | | 160($M_{60}$) | | | - | | 4.3[a] |
| | Tensile Stress N/mm² | 23°C | 0.4 or less | 0.4 exceeding[c] | 0.4 or less | 0.4 exceeding[c] | | - | | |
| | | -20°C | 0.6 or less | 0.6 exceeding[c] | 0.6 or less | 0.6 exceeding[c] | | | | |
| | Extension Ratio at Failure[e] | % | - | | | | | 100 or more | 20 or more | |
| Adhesion under Constant Extension | | | Should not be failed[d]. | | | | | - | | 4.4[a] |
| Adhesion after Compression Heating and Tensile Cooling | | | Should not be failed[e]. | | | | | - | | 4.5[a] |
| Adhesion After Artificial Light Exposure | | | - | | | | | Should not be failed[c]. | | 4.6[a] |
| Adhesion under Constant Extension after Immersion in Water | | | Should not be failed[d]. | | | | | - | | 4.8[a] |
| Extension Ratio at Adhesive Failure after Immersion in Water[f] | | | - | | | | | 100 or more | 20 or more | 4.9[a] |
| Volume Loss | | % | 10 or less[g] | | | | 25 or less | | | 4.11[a] |

a) Testing conditions should follow to section 7.
b) The extension ratio of the joint width is based on an initial joint width of 100%, so 200% represents a joint width of 24.0 mm, and 160% represents a joint width of 19.2 mm. Meanwhile, the tensile stress at extension ratios of 200% or 160% corresponds to the tensile stress at extension ratios of 100% or 60%, respectively. Therefore, these can be referred to as 100% tensile stress or 60% tensile stress, and abbreviated as M100 or M60.
c) For this grade, any value meeting 23°C or -20°C is acceptable.
d) Failure conditions should follow section 7.1(c).
e) Failure conditions should follow section 7.1(d).
f) The extension ratio at failure is the ratio of the deformation amount minus the initial joint width.
g) Water-dispersible sealants should be 25% or less.

# Comparison of Sealant Types and Application Method

| Category | Advantages | Disadvantages |
|---|---|---|
| OIL-BASED CAULKING MATERIAL | • Low cost<br>• Convenient to use as a single-component. | • Short product lifespan (approximately 3-5years)<br>• No elasticity after drying<br>• Slow curing<br>• Volume shrinkage<br>• Loss of adhesion, cracking |
| BUTYL SEALANT | • Low cost<br>• Long product shelf life<br>• Good adhesion<br>• Convenient to use as a single-component. | • Sticky at high temperatures<br>• Cracking easily occurs in winter<br>• Low elasticity and recovery (±7.5%)<br>• Short lifespan (approximately 5years)<br>• Heating required during caulking |
| ACRYLIC SEALANT | • Low cost<br>• Excellent paintability<br>• Good for joints with no movement<br>• Convenient to use as a single-component. | • Freezes in winter, making it unusable<br>• Low elasticity (±12.5%)<br>• Poor adhesion<br>• Short lifespan (approximately 5years) |
| POLYSULFIDE SEALANT | • Good for general double-glazed glass production<br>• Good elasticity (±25%)<br>• Good lifespan (approximately 10-20 years) | • Cracking due to UV exposure<br>• Primer required<br>• High cost<br>• Difficult to cure at low temperatures<br>• Inconvenient to use as a two-component system |
| POLYURETHANE SEALANT | • Good price<br>• Excellent tear strength<br>• Good lifespan (approximately 10-20 years)<br>• Good elasticity (±25%) | • Slow curing<br>• Cracking due to UV exposure<br>• Primer required<br>• High tendency for yellowing<br>• Inconvenient to use as a two-component system |
| MODIFIED SILICONE SEALANT | • Good lifespan (approximately 10-20years)<br>• Good elasticity (±25%)<br>• Contains approximately 2% silicone components<br>• Excellent paintability<br>• Good weather resistance | • Quite slow curing<br>• Primer required<br>• Limited product range |
| SILICONE SEALANT | • Semi-permanent lifespan (over approximately 20 years)<br>• Excellent resilience (-50 to +100%)<br>• Excellent adhesion<br>• Fast curing<br>• Excellent heat resistance (150°C)<br>• No deformation from UV exposure<br>• Convenient to use as a single-component | • Not paintable<br>• High cost<br>• Tear strength weaker than PU<br>• Moisture required for curing |

## Application Method

**STEP 01**

### Joint Cleaning

Dust and impurities should be completely removed, and there should be no moisture or grease.
(Use solvents for contamination removal.)

**STEP 02**

### Back-Up Material Insertion

Insert a back-up material that is 20-30% larger than the joint width into the joint to prevent three-sided adhesion.

**STEP 03**

### Masking Tape Application

Attach masking tape on both sides of the joint to prevent contamination around the joint.

**STEP 04**

### Primer Application

Select the appropriate primer and apply it evenly to the substrate, allowing it to dry for at least 30 minutes.
(Apply primer only if needed.)

**STEP 05**

### Sealant Filling

Fill the joint with sealant without gaps to avoid trapping air bubbles

**STEP 06**

### Surface Smoothing

Immediately after filling, use a spatula or appropriate tool that matches the specifications to smooth the surface.

**STEP 07**

### Masking Tape Removal

Remove the masking tape at a 40°-60° angle before the sealant surface cures.

**STEP 08**

### Post-Application Cleaning

After application, remove the sealant around the joint with a solvent, and immediately wipe the application tools with a cloth. Then, wash them with the appropriate cleaning agent.

# Consumption Amount

| Joint Size(mm) | Sealant Usage per Meter(M) | |
|---|---|---|
| Width X Depth | Sealant Usage per Meter (L) | Sealing Length(M) per Catridge (300ml basis) |
| 3 X 3 | 0.009 | 33.3 |
| 4 X 4 | 0.016 | 18.8 |
| 5 X 5 | 0.025 | 12.0 |
| 6 X 6 | 0.036 | 8.3 |
| 8 X 8 | 0.064 | 4.6 |
| 10 X 5 | 0.05 | 6.0 |
| 10 X 10 | 0.1 | 3.0 |
| 15 X 10 | 0.15 | 2.0 |
| 15 X 15 | 0.23 | 1.3 |
| 20 X 10 | 0.2 | 1.5 |
| 20 X 15 | 0.3 | 1 |
| 20 X 20 | 0.4 | 0.7 |
| 30 X 10 | 0.3 | 1 |
| 30 X 15 | 0.45 | 0.7 |
| 30 X 20 | 0.6 | 0.5 |
| 40 X 10 | 0.4 | 0.8 |
| 40 X 20 | 0.8 | 0.4 |
| 40 X 30 | 1.2 | 0.3 |
| 50 X 10 | 0.5 | 0.6 |
| 50 X 20 | 1 | 0.3 |
| 50 X 30 | 1.5 | 0.2 |

# Silicone Color Chart

| ITEM / COLOR | INNO SEAL 799 | INNO SEAL 988 | INNO SEAL 792 | INNO SEAL 1000 | MS 704 | INNO SEAL GP-1 | PREMIUM INNO SEAL GP-1 | INNO SEAL BIO 707 | PREMIUM INNO SEAL BIO 707 | INNO SEAL 386 | PREMIUM INNO SEAL 386 | INNO PAIR SEAL | DS 6699 | DS 7000 | INNO SEAL 1199 | INNO SEAL 739 | INNO SEAL 221 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TRANSLUCENT | | | ○ | | | ○ | ○ | ○ | | | | | | | | | ○ |
| WHITE | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | |
| GREY | ● | ● | ● | ● | ● | ● | ● | ● | | ● | ● | | | ● | ● | ● | |
| BRONZE | | ● | ● | ● | | ● | ● | | | | | | | | | | |
| BLACK | ● | ● | ● | ● | | ● | ● | | | | | ● | ● | | ● | | |
| GREEN | | | ● | | ● | ● | ● | | | | | | | | | | |
| IVORY | | ● | | ● | | ● | ● | ● | | | | | | | | | |
| WOOD | | | | | | ● | ● | | | | | | | | | | |
| CHERRY | | | | | | ● | ● | | | | | | | | | | |
| RED | | | | | | ● | ● | | | | | | | | | ● | |
| GOLD | | | | | | ● | ● | | | | | | | | | | |
| BLUE | | | | | | ● | ● | | | | | | | | | | |
| LIME STONE | | ● | | | | | | | | | | | | | | | |
| RED STONE | | ● | | | | | | | | | | | | | | | |
| LIGHT IVORY | | | | | | ● | ● | | | | | | | | | | |

## Special Color

| ITEM / COLOR | Light Wood L.WOOD | Light Grey L.GREY | Light Blue L.BLUE | Dark Blue D.BLUE | WAL-NUT | Dark Grey D.GREY | Red Grey R.GREY | Blue Grey B.GREY | Dark Gold D.GOLD | Dark Cherry D.CHERRY | Dark Bronze D.BRONZE | Oak OAK-WOOD | Black Bronze B.BRONZE | Light Bronze L.BRONZE | Light Black L.BLACK | AL ALUMINUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INNOSEAL GP-1 | ● | ● | ● | ● | ● | ● | | | ● | ● | | ● | | | | ● |
| PREMIUM INNOSEAL GP-1 | ● | ● | ● | ● | ● | ● | | | ● | ● | | ● | | | | ● |
| INNOSEAL 988 | | ● | | | | ● | ● | ● | | | ● | | ● | ● | ● | |

988 Special Colors - Dark Grey (D. GREY), Light Grey (L. GREY), Light Black (L. BLACK), Dark Bronze (D. BRONZE), Red Bronze (R. BRONZE), Lihgt Bronze (L.BRONZE)

※ GREENsil 808 can be custom-colored in special colors, so please inquire when placing an order.
※ Please note that the above color chart is printed, and there may be differences from the actual product colors (refer to the separate color chart distributed by the Company).

# KS, ISO, Laboratory Approval, Patent etc

## Korea Certification


## R&D Center Certification


## ISO 9001:2015


## ISO 14001:2015

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