BUILDING TRUST
CONSTRUIRE LA CONFIANCE

PRODUCT DATA SHEET

King® HLM-350

Natural hydraulic lime-based masonry mortar for repointing applications

PRODUCT DESCRIPTION

King® HLM-350 is a premixed, factory-bagged mortar specially designed to be used when repointing masonry elements. This mortar is formulated with natural hydraulic lime, masonry sand with controlled grain size and an air-entraining admixture.

WHERE TO USE

- Repointing buildings or monuments (ancient or modern)
- Can be used for interior and exterior applications

CHARACTERISTICS / ADVANTAGES

- Factory-calibrated mix
- Formulated without cement
- Formula similar to historic mortars
- Excellent water vapour transmission properties
- Better resistance to freeze-thaw cycles than hydrated lime
- Better resistance to de-icing salts than hydrated lime

PRODUCT INFORMATION

Packaging	30 kg (66 lb) triple-lined bags, polywrapped on wooden pallets.
Appearance / Colour	Powder / Cream Note: May be factory-coloured or at the job site using the King® ColourPlus Pigment System exclusive to Sika Canada. All pigments used conform to the requirements of *ASTM C979 Pigments for Integrally Colored Concrete* .
Shelf Life	12 months in original, unopened bag
Storage Conditions	Always store in a dry area, protected from the weather. At the job site, an additional tarpaulin must be used to cover the product to prevent water infiltration.
CSC MasterFormat®	04 05 13 - Masonry Mortaring and Grouting Specifications template are available on Sika Canada Website

TECHNICAL INFORMATION

Compressive Strength

ASTM C109 - Minimum *

7 days	28 days	90 days
0.7 MPa (101 psi)	1.8 MPa (261 psi)	2.7 MPa (391 psi)

* The compressive strengths of natural hydraulic lime mortars gradually in-

	crease as a function of time unlike mortars containing cement which reach their optimal value around 28 days. Note: The pigments used to colour the mortar have no effect on its mechanical properties.
Shrinkage	**ASTM C596 / Shrinkage** 0.05 % at 91 days
Porosity	**EN-1015-7 Method / Air Content** 14 % Maximum
Yield	Approx. 0.018 m^3 (0.65 ft^3) of fresh mortar per 30 kg (66 lb) bag
Product Temperature	Refer to the "Placement condition" section on the Specifications template document on Sika Canada Website.
Ambient Air Temperature	Refer to the "Placement condition" section on the Specifications template document on Sika Canada Website.
Substrate Temperature	Refer to the "Placement condition" section on the Specifications template document on Sika Canada Website.
Consistency	**ASTM C780 / Vicat Cone** 15 mm ± 5 mm (0.6 in ± 0.2 in)

BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LIMITATIONS

- **Do not use the King® HLM-350 when the temperature at the job site drops below 5 °C (40 °F)**
- Do not use King® HLM-350 for laying masonry units, use King® HLM-500.
- Do not use King® HLM-350 for below ground level application.
- Never add admixtures at the job site to modify set time, workability, or any other property of the mortar in its plastic or hardened state.
- Always use potable water.
- Use only the recommended water dosage to obtain the desired properties of the mortar in its plastic or hardened state.
- Never add water to recover the loss of workability. Only mix again.
- Never use on frozen surfaces.
- Colour variations on the hardened mortar can be observed even if the mortar in-place has been previously factory-prepared and complies with the project specifications. These colour variations are mainly attributable to inadequate application conditions such as delay between mixing and tooling of joints, lack of protection against the weather during installation, or variable absorption/moisture rates of the construction elements. In order to avoid an undesirable result, we recommend that you pay particular attention to these points.

ENVIRONMENT, HEALTH & SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Prepare the surface to be repaired in order to remove loose particles and faulty mortar on a thickness corresponding at least to twice the thickness of the joint to be repaired or up to obtaining a healthy mortar. Moisten the area to be repaired without leaving standing water in the cavities to be filled.

MIXING

Small batch
Important: In order to avoid segregation issues, always mix the total content of one bag. If less than a 30 kg (66 lb) bag of King® HLM-350 is required, dry mix - without water - the total content of the bag in a clean container, take the required amount, and then add water to the amount withdrawn from the mixture.

Large batch
Always mix the entire content of the bag. Mix the King® HLM-350 with a maximum of 4.2 L (1.1 US gal) of water per 30 kg (66 lb) bag, in a clean mortar mixer. Pour 3.8 L (1 US gal) of water into the mixer and add 30 kg (66 lb) of King® HLM-350. Mix for five (5) minutes, or five (5) to ten (10) minutes when using a coloured mortar or when a colourant is added at the job site. Allow the mortar to stand for a short period of time. Using the remaining water, adjust the mortar to obtain the desired consistency. Once well mixed, the consistency of the mortar should be firm enough

to allow you to shape a ball with your hands.

APPLICATION

The application of the mortar must comply with the requirements of Section 6 of CSA-A371-14.

APPLICATION METHOD / TOOLS

MORTAR PLACEMENT

Place the mortar in successive layers of 6 mm (¼ in) thickness maximum. The layers of mortar are applied wet-on-wet. If work is interrupted, moisten the joint again before resuming work. Tool the joints and start the curing process. Avoid working in direct sunlight or exposed to wind. Sun and wind are factors to be taken into account in order to avoid cracking problems.

TOOLING OF THE JOINTS

The tooling of joints exposed to rain is an important step that contributes to the waterproofing of the masonry system and must be done using a jointer. The amount of water present in the mortar joint at the time of tooling will determine the final colour of the cured mortar. To avoid colour variation, ensure that the mortar joint always contains the same amount of water when it is tooled. As a general rule, the joint is considered ready to be tooled when the mortar has hardened sufficiently such that a finger mark remains. Always tool the joint in order to respect the historical aspect of the original mortar.

CURING TREATMENT

Curing is essential for optimizing the physical properties of the mortar. Curing is carried out by performing a moist cure which must begin as soon as the initial setting of the mortar begins and for a period of three (3) to seven (7) days. To learn more about the moist cure, refer to the guide: How to perform a moist cure for masonry, published by Sika Canada and available on the company's website.

CLEAN UP

In order to avoid the use of chemicals, it is always recommended to remove as much mortar splashes or stains as possible before the material hardens. Use water, a piece of burlap or wood. If the use of cleaning products is necessary, be sure to contact the manufacturer of the product to validate the compatibility and the procedure to follow. It is important to mention to the manufacturer that it is a hydraulic lime-based mortar with the addition of iron and titanium oxides pigments when coloured.

Regardless of the technique or product selected, it is essential to preserve the integrity of the mortar.

Be sure to clean a test area before proceeding with the work.

Clean all tools and equipment after use with water. Once hardened, the product can only be removed mechanically.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

TREMCO

TECHNICAL DATA SHEET

SPECTREM® 1

Single-Component, Moisture-Cure Silicone Sealant

PRODUCT DESCRIPTION

Spectrem® 1 is a high-performance, single-component, moisture-cure, ultra-low modulus silicone sealant ideal for sealing difficult-to-adhere-to substrates in a variety of applications.

BASIC USES

Spectrem 1 is the ideal sealant for the most demanding dynamically moving joints. This includes material having a high coefficient of linear expansion such as aluminum curtainwalls, precast concrete panels, metal panels, and window perimeters.

When detailing over the ExoAir® Air Barrier system, Spectrem 1 is the recommended sealant to ensure an airtight seal throughout the building envelope. Spectrem 1 has excellent adhesion to most polyethylene-backed, self-adhering air barrier membranes. The performance of Spectrem 1 is exceptional when used on the polyethylene face of ExoAir 110, Exoair 110AT, ExoAir TWF and the cured surface of Exoair 130, and ExoAir 230.

Spectrem 1 is recommended for use with Tremco's Silicone Rubber extrusions, Spectrem Simple Seal and Tremco's patented solution, Proglaze® ETA (Engineered Transition Assembly), for sealing between challenging conditions such as the opaque wall air barrier and window/curtain wall assemblies. Spectrem 1 is also compatible for use over Nudura Insulated Concrete Forms (ICF).

FEATURES & BENEFITS

Spectrem 1 is a perfect choice for sealing difficult-to-adhere-to substrates. Spectrem 1 has excellent adhesion to a variety of substrates, allowing for one product that can be used for multiple applications on the same job, from perimeter caulking to expansion joints. The ultra-low modulus of Spectrem 1 means high elasticity with movement accomodation of +100/-50%.

- Slightly grainy texture allows Spectrem 1 to zipper rather than fully tear if failure occurs
- Offered in a wide variety of colors, with custom colors and color matching available for special projects

There is no mixing required with Spectrem 1, so product is always ready to use for immediate application with conventional caulking equipment. Spectrem 1 provides resistance to driving rain, ozone, ultra-violet light and temperature extremes, plus safeguards against water penetration with exceptional weatherability in all climate zones. Additionally, the Greenguard Gold certification on Spectrem 1 ensures safety for use in the most sensitive indoor environments including hospitals and schools.

Spectrem 1 meets or exceeds the requirements of the following specifications:

- ASTM C920 Type S, Grade NS, Class 100/50, Use NT, M, G, A, and O
- ASTM C1248, ASTM C1382, ASTM E84
- U.S. Federal Specification TT-S-001543A (COM-NBS) Class A
- U.S. Federal Specification TT-S-00230C (COM-NBS) Class A, Type II
- CAN/CGSB 19.13-M87, MCG-2-40-B-N
- EIMA Test Method 300.01
- Spectrem 1 has been tested as a component of several wall assemblies meeting ASTM E2357, the Standard Test Method for Determining Air Leakage of Air Barrier Assemblies, and NFPA 285, the Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non- Load-Bearing Wall Assemblies Containing Combustible Components

AVAILABILITY

Immediately available from your local Tremco Sales Representative, Tremco Distributor, or Tremco Warehouse in 10.1 oz (300 mL) cartridges, 20 oz (600 mL) sausages, and 55 gal (208 L) drums.

COLORS

Available in Adobe Tan, Aluminum Stone, Anodized Aluminum, Black, Blue Spruce, Bronze, Buff, Charcoal, Dark Bronze, Gray, Ivory, Light Bronze, Limestone, Off White, Purple, Sandstone, and White.

All colors are not available in all package sizes. Some colors may require a minimum quantity. Contact Tremco Customer Service for more information.

LIMITATIONS

Do not apply to damp or contaminated surfaces. Not intended for continuous water immersion. Use with adequate ventilaiton.

WARRANTY

A repair or replacement warranty is available on all Tremco products. Visit https://www.tremcosealants.com/warranties/ for details.

TYPICAL PHYSICAL PROPERTIES		
PROPERTY	TEST METHOD	TYPICAL RESULTS
As Supplied:		
Curing Time		7 to 14 days
Flow, Sag or Slump Inches	ASTM C639	Nil
Full Adhesion		14 to 21 days
Tack Free Time	ASTM C679	30 to 60 min
Tooling Time	Skin Formation	10 to 20 min
Extension		+100
Appearance		Slight grain finish
As Cured, After 14 Days at 77°F (25°C), 50%RH:		
Joint Movement Capability	ASTM C719	+100% / -50%
Hardness (Shore A)	ASTM C661	+15
Peel Strength Aluminum & Glass	ASTM C794	30 pli (5.2 kN/m)
Stain & Color Change	ASTM C510 TT-S-001543A	None
Staining of Porous Substrates, White Marble Primed & Unprimed	ASTM C1248	No Stain
Tear Strength, Die (“C”)	ASTM D624	40 pli (0.7 kN/m)
Tensile Strength at 100% Elongation	ASTM C1184	35 psi (0.24 MPa)
Tensile Strength at Max Elongation	ASTM D412	200 psi (1.38 MPa)

Please refer to our website at www.tremcosealants.com for the most up-to-date Product Data Sheets.

NOTE: All Tremco Safety Data Sheets (SDS) are in alignment with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) requirements.

SPEC1DS/0724

TREMCO

TECHNICAL DATA SHEET

SPECTREM® 3

Single-Component, Non-Staining Sealant with Advanced Silicone Technology

PRODUCT DESCRIPTION

Spectrem® 3 is a single-component, neutral-cure, low-modulus, construction grade sealant with patented advanced silicone technology. Spectrem 3 is non-staining and low polar, which leads to reduced attraction to dirt and increased aesthetic appearance.

BASIC USES

Spectrem 3 has a patented chemistry that has been specifically formulated to seal porous stone, EIFS, metal panels, masonry, and pre-cast concrete joints.

FEATURES & BENEFITS

Spectrem 3 offers low polar attraction to dirt, limiting accumulation and making buildings easier to clean and maintain. Additionally, Spectrem 3 has a matte finish, which creates an aesthetically pleasing appearance with EIFS and stone substrates. Spectrem 3 comes with a 20-yr non-staining warranty when pre-approved and tested by Tremco in accordance with ASTM C1248.

The low-modulus and low Shore A hardness of Spectrem 3 reduces the chance of EIFS substrate failures when compared to applications with medium-modulus sealants. Spectrem 3 is easy to apply with conventional caulking equipment.

- Primerless adhesion to most porous substrates
- Ease of use reduces the risk of application failure
- Extended tooling time and workability in high temperatures
- Low-VOC and zero-solvent content satisfies the LEED Indoor Environmental Criteria

There is no cure inhibition for Spectrem 3 with Spectrem 1, Spectrem 2, or Dymonic® FC when applied "wet-to-wet," minimizing the chance of leakage when sealants abut at glazing and other façade intersects.

Spectrem 3 meets or exceeds the requirements of the following specifications:

- ASTM C920 Type S, Grade NS, Class 50*, Use NT, M, G, A, and O
- ASTM C1248
- ASTM C1382
- U.S. Federal Specification TT-S-001543A Class A
- U.S. Federal Specification TT-S-00230, Type II, Class A
- CAN/CGSB 19.13-M87
- EIMA Test Method 300.01

The Greenguard Gold certification on Spectrem 3 ensures safety for use in the most sensitive indoor environments including hospitals and schools.

AVAILABILITY

Immediately available from your local Tremco Sales Representative, Tremco Distributor, or Tremco Warehouse in 10.1 oz (300 mL) cartridges and 20 oz (600 mL) sausages.

COLORS

Available in Adobe Tan, Aluminum Stone, Anodized Aluminum, Black, Bronze, Buff, Champagne, Charcoal, Dark Bronze, Gray, Hartford Green, Ivory, Light Bronze, Limestone, Off White, Precast White, Rustic Brick, Sandstone, and White.

All colors are not available in all package sizes. Special colors and packaging available upon request. Minimum order requirements exist. Contact Tremco Customer Service for more information.

LIMITATIONS

Do not apply to damp or contaminated surfaces. Not intended for continuous water immersion. Use with adequate ventilaiton.

WARRANTY

A repair or replacement warranty is available on all Tremco products. Visit https://www.tremcosealants.com/warranties/ for details.

TYPICAL PHYSICAL PROPERTIES		
PROPERTY	**TEST METHOD**	**TYPICAL RESULTS**
As Supplied:		
Tack Free Time	ASTM C679	2 hours
Tooling Time	Skin Formation	40 min
As Cured, After 14 Days at 77°F (25°C), 50%RH:		
Joint Movement Capability Extension Compression	ASTM C719	±50%
Hardness (Shore A)	ASTM C661	+15
Peel Strength Aluminum & Glass	ASTM C794	25 to 35 pli minimum
Stain & Color Change	ASTM C510 TT-S-001543A	No Stain
Staining of Porous Substrates, White Marble Primed & Unprimed	ASTM C1248	No Stain
Tear Strength, Die (“C”)	ASTM D624	25 to 30 pli minimum
Tensile Strength at Max Elongation	ASTM D412	155 psi
Tensile Strength at Max Elongation 100% Modulus	ASTM D412	55 psi
Tensile Strength at Max Elongation 50% Modulus		40 psi
Tensile Strength at Max Elongation 25% Modulus		25 psi
Service Temperature Range		-40 to 300 °F (-40 to 149 °C)

Please refer to our website at www.tremcosealants.com for the most up-to-date Product Data Sheets.

NOTE: All Tremco Safety Data Sheets (SDS) are in alignment with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) requirements.

SPEC3DS/1222

SPECTREM® COLOR CARD

High-Performance Single-Component Silicone Sealants

Spectrem® silicone sealants offer high performance and exceptional weatherability in a variety of the most demanding dynamically moving joints and perimeter caulking applications.

Many Willseal® solutions are available finished in any standard Spectrem® color – in addition to many industry standard colors. For even greater customization, we can also custom-match most colors to blend in perfectly with your project.

STANDARD COLORS

CLEAR	WHITE	PRECAST WHITE	IVORY	SANDSTONE
BUFF	OFF WHITE	LIMESTONE	ANODIZED ALUMINUM	GRAY
ALUMINUM STONE	LIGHT BRONZE	CHAMPAGNE	ADOBE TAN	RUSTIC BRICK
HARTFORD GREEN	CHARCOAL	BRONZE	DARK BRONZE	BLACK

All colors shown are approximate and may not reflect sheen or shade precisely, as varying amounts of aggregate will alter light-reflecting properties. Tremco always recommends a test patch to gain final color approval. Different lighting conditions can influence color appearance: for truer color please view in daylight. Some colors may require a minimum quantity. Custom colors are available upon request. Contact Tremco Customer Service for more information.

Tremco Commercial Sealants & Waterproofing | 3735 Green Road | Beachwood, OH 44122 | US: 800.852.9068 | CAN: 800.363.3213 | tremcosealants.com

Tremco Construction Products Group (CPG) brings together Tremco Incorporated's Commercial Sealants & Waterproofing and Roofing & Building Maintenance operating divisions; Dryvit Systems, Inc.; Nudura Inc.; Willseal; Weatherproofing Technologies, Inc. and Weatherproofing Technologies Canada, Inc.

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Technical Data Sheet

DOWSIL™ 790 Silicone Building Sealant

Ultra-low-modulus sealant for new and remedial construction joint sealing applications

Features & Benefits

- Excellent performance even in building joints that experience extreme movement.
- Suitable for new and remedial construction.
- Extension/compression capability of +100/-50 percent.
- Excellent weathering properties and resistance to sunlight, rain, snow, and temperature extremes.
- Excellent unprimed adhesion to masonry, concrete substrates.
- Easy application over a wide temperature range.

Composition

- Ultra-low-modulus, one-part, neutral-cure silicone sealant.

Applications

- DOWSIL™ 790 Silicone Building Sealant offers outstanding unprimed adhesion to masonry and is particularly effective for sealing expansion and control joints, precast concrete panel joints, Exterior Insulation and Finish Systems (EIFS) joints, curtainwall joints, mullion joints, stone pavers, and many other construction joints. When used in accordance with Dow application and testing recommendations, the sealant forms a durable, flexible, watertight bond with many common building materials, including combinations of stone, concrete, masonry, granite, marble, aluminum, painted substrates, and glass.

Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Test[1]	Property	Unit	Result
	As Supplied		
ASTM C 679	Tack-free Time, 50% RH	hours	1
	Curing Time, 50% RH, at 25°C (77°F), 3/8" Depth	days	7–14
	Full Adhesion, Cured Joint	days	14–21
ASTM D 2202	Flow, Sag, or Slump		None
CTM 98	Working Time	minutes	10–20

1. ASTM: American Society for Testing and Materials.
CTMs (Corporate Test Methods) correspond to standard ASTM tests in most instances. Copies of CTMs are available upon request.

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Form No. 61-884-01-0126 S2D

Typical Properties (Cont.)

Test	Property	Unit	Result
EPA Method 24	VOC Content[2], Maximum	g/L	23
	As Cured – After 7 Days at 25°C (77°F) and 50% RH		
ASTM C 661	Durometer Hardness, Shore A	points	15
ASTM D 412	Tensile Strength, Maximum	psi (kg/mm^2)	100 (0.070)
ASTM C 794	Peel Strength	lb/in (kg/cm)	25 (4.46)
ASTM C 1135	Tensile		
	At 25% Extension	psi (kg/mm^2)	15 (0.010)
	At 50% Extension	psi (kg/mm^2)	20 (1.015)
ASTM C 719	Joint Movement Capabilities		
	Extension/Compression	%	+100/-50
ASTM C 1248	Staining, Various Substrates		None

2. Based on South Coast Air Quality Management District of California. Maximum VOC is listed both inclusive and exclusive of water and exempt compounds.

Description

Suitable for new construction or remedial applications, DOWSIL™ 790 Silicone Building Sealant provides excellent performance, even in building joints that experience extreme movement. It places a low stress on the sealant/substrate bond line to minimize failures in moving joints.

DOWSIL™ 790 Silicone Building Sealant is available in 15 colors. Custom colors are available upon request.

Approvals/ Specifications

This sealant meets or exceeds the requirements of:

- ASTM Specification C 920, Type S, Grade NS, Class 100/50, Use T, NT, M, G, A, and O
- Many UL wall/floor fire designs, some without a protective cover plate (see www.ul.com for current listing)
- Fire Tests of Building Construction and Materials, UL 263 (ASTM E 119)

Data from an independent test lab and Sealant, Waterproofing and Restoration Institute validation are available from Dow and the SWR Institute. A complete product specification sheet for this product is available upon request.

How to Use

Consult the current version of the Dow Americas Technical Manual, Form No. 62-1112, for detailed information on application methods, joint design, field testing, and warranty requirements when using Dow sealants. Please contact your local sales application engineer for specific advice.

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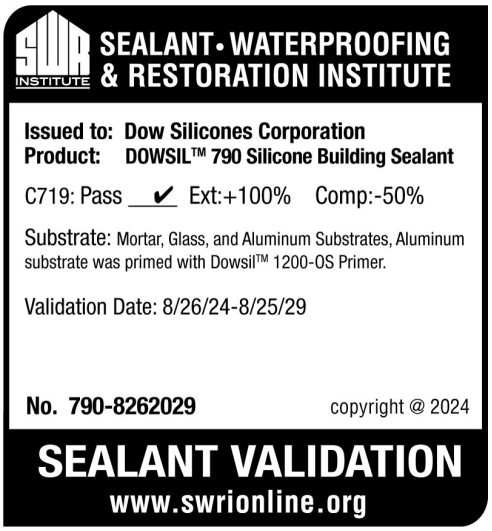
How to Use (Cont.)



Handling Precautions

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Usable Life and Storage

When stored at or below 32°C (90°F), DOWSIL™ 790 Silicone Building Sealant has a shelf life of 12 months from date of manufacture. Refer to product packaging for “Use By” date.

Packaging Information

DOWSIL™ 790 Silicone Building Sealant is packaged in 10.3 fl oz (305 mL) disposable cartridges that fit ordinary caulking guns, 20 fl oz (590 mL) E-Z Pak foil sausages that fit caulking guns, and also in 2.0 and 4.5 gal (7.5 and 17 L) bulk pails. It can be dispensed by many air-operated guns and most types of bulk dispensing equipment.

Limitations

DOWSIL™ 790 Silicone Building Sealant should not be applied:

- In structural applications.
- Below grade or to materials that outgas, which can cause bubbling in curing sealant.
- On brass or copper or other similar material that can be corroded.
- To surfaces that are continuously immersed in water.
- For use as an interior penetration firestop sealing system.
- To building materials that bleed oils, plasticizers, or solvents – materials such as impregnated wood, oil based caulks, green or partially vulcanized rubber gaskets, or tapes or bituminous below-grade waterproofing and asphalt-impregnated fiberboard.
- In totally confined spaces because the sealant requires atmospheric moisture for cure.
- To surfaces that will be painted after application. The paint film will not stretch with the extension of the sealant and may crack and peel and most likely will not adhere to the sealant.
- To surfaces in direct or indirect contact with food.
- To wet or frost-laden surfaces.
- In applications where solvents or primers are not fully dried prior to sealant application. Uncured sealant is very sensitive to many solvents, primers, and cleaning agents; these may cause the sealant to remain uncured or tacky.

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Limitations (Cont.)

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

Health and Environmental Information

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, dow.com or consult your local Dow representative.

Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

dow.com

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Form No. 61-884-01-0126 S2D

DOWSIL™ 790 Silicone Building Sealant Color Guide


Adobe Tan


Black


Blue Spruce


Bronze


Charcoal


Window Bronze
(sausages only)


Dusty Rose


Gray


Limestone


Champagne


Natural Stone


Rustic Brick

Precast White


Sandstone

White

Colors on this sheet are close approximations of actual sealant colors and intended for guidance only. Contact your Dow distributor to request cured sealant samples for accurate matching. Users should confirm color meets their requirements.

For more information

Learn more about Dow's full range of High Performance Building solutions by visiting us online at **dow.com/buildingscience.**

Dow has sales offices, manufacturing sites and science and technology laboratories around the globe. Find local contact information at **dow.com/contactus.**

Dow Building Science website:
dow.com/buildingscience

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PROSOCO®

Sure Klean®

CLEANING & PROTECTIVE TREATMENTS

Light Duty Concrete Cleaner

Sure Klean® Light Duty Concrete Cleaner is specially formulated to remove common construction and atmospheric staining from a variety of substrates, including smooth architectural and engineered concrete, custom masonry, concrete brick, manufactured stone and decorative pavers.

The acidic cleaner removes rust, mud, atmospheric dirt, mortar smears and other stains without altering the surface texture. Light Duty Concrete Cleaner adds depth to colors, brightens white matrices and exposed aggregate.

TYPICAL TECHNICAL DATA

FORM	Clear, colorless liquid Slight odor
SPECIFIC GRAVITY	1.129
pH	1.14 @ 1:2 dilution 1.28 @ 1:6 dilution
WT/GAL	9.39 lbs
FREEZE POINT	12° F (–11° C)
SHELF LIFE	3 years in tightly sealed, unopened container

REGULATORY COMPLIANCE

VOC Compliance

Sure Klean® Light Duty Concrete Cleaner is compliant with all national, state and district VOC regulations.

SAFETY INFORMATION

Always read full label and SDS for precautionary instructions before use. Use appropriate safety equipment and job site controls during application and handling.

24-Hour Emergency Information:
INFOTRAC at 800-535-5053

ADVANTAGES

- **Effective on multiple substrates, including manufactured stone and concrete brick.**
- **Improves color uniformity and enhances appearance.**
- **Contains no muriatic acid.**
- **Removes common construction stains and atmospheric dirt.**
- **Removes efflorescence stains on brick and decorative pavers, new concrete and stone construction, as well as secondary efflorescence on concrete block.**
- **Removes localized rust and other metallic staining on unpolished limestone, travertine and marble. Always test.**
- **Safe for most pigmented concrete and colored mortar.**
- **Supplied in concentrate for easy on-site dilution.**
- **Water rinsable.**

Limitations

- Acidic contents may damage polished masonry, some non masonry and acid-sensitive surfaces.
- May remove some surface-applied accent colors. Always test to confirm suitability and results before overall application.
- May damage exposed low-E glass treatments; acrylic and polycarbonate sheet glazing; and glazing with surface-applied reflective, metallic or other synthetic coatings and films. Modern soft coat or hard coat low-E glass is not intended to be on the external face of the glass and should not be exposed to or adversely affected by proper cleaning. Always test for adverse effects prior to overall application. If testing is not feasible or indicates adverse effects, such substrates must be protected.

PREPARATION

Clean masonry before installing non-masonry materials such as windows, doors, finished flooring, metal fixtures, hardware, light fixtures, roofing materials, etc. that the cleaner could harm. If cleaning is to be completed after installation of

non-masonry materials not intended for treatment or exposure to Light Duty Concrete Cleaner, test all substrates not intended to be treated with Light Duty Concrete Cleaner before full scale application. If testing is not feasible or indicates adverse effects, protect substrates from product splash, residue, wind drift and fumes with Sure Klean® Strippable Masking or polyethylene prior to application.

All caulking and sealant materials should be in place and thoroughly cured before cleaning.

When applying to the exteriors of occupied buildings, make sure all windows, exterior intakes and air conditioning vents are covered and air handling equipment are shut down during application.

Cleaning high-strength mortar/grout on all substrates within seven days improves results.

Recommended for these substrates. Always test. Coverage is in sq.ft./m. per gallon of concentrate.

Substrate	*Type*	*Use?*	*Coverage*
Architectural Concrete Block	Burnished Smooth Split-faced Ribbed	**yes** **yes** **yes** **yes**	300–400 sq.ft. 28–37 sq.m.
Concrete	Brick Tile Precast Panels Pavers Cast-in-place	**yes** **yes** **yes** **yes** **yes**	300–600 sq.ft. 28–56 sq.m.
Fired Clay	Brick♦ Tile Terra Cotta (unglazed) Pavers♦	**yes** no no **yes**	300–400 sq.ft. 28–37 sq.m.
Marble, Travertine, Limestone	Polished	no	N/A
	Unpolished*	**yes**	300–600 sq.ft. 28–56 sq.m.
Granite	Polished	**yes**	300–500 sq.ft. 28–46 sq.m.
	Unpolished	**yes**	
Sandstone	Unpolished	**yes**	300–400 sq.ft. 28–37 sq.m.
Slate	Unpolished	**yes**	300–500 sq.ft. 28–46 sq.m.

♦Sure Klean® 600, 101 Lime Solvent or Vana Trol® may be more suitable.

*For use in removing localized rust and other metallic staining. ALWAYS TEST for suitable results before overall use, especially on marble surfaces.

Always test to ensure desired results. Coverage estimates depend on surface texture and porosity.

The presence of excessive moisture in the wall contributes to efflorescence and other staining. Always protect open wall cavities from rain during construction.

When working over traffic, clean when traffic is at a minimum. Protect or divert traffic if necessary.

Concrete Brick & Manufactured Stone Surfaces

Remove mortar residues and construction soiling from concrete brick and manufactured stone surfaces within 7–14 days of tooling the mortar joints. Let mortar/grout cure at least 7 days before cleaning.

The accent color found on many types of manufactured stone is sensitive to any cleaning operation. To limit the potential for loss of accent color, minimize the accumulation of excess mortar on the face of the manufactured stone. Avoid bonding agents whenever practical as they make excess mortar more difficult to remove without loss of applied accent colors. Clean carefully as you go, using fresh water and a soft brush.

New Brick & Tile Surfaces

Construction soiling and mortar residues on new brick and tile surfaces clean most effectively if the cleaning is done within 14–28 days of installation. Mortar and grout smears left on the surface longer result in a more difficult clean down and may cause undesirable results.

Surface and Air Temperatures

For best results, clean when air and masonry surface temperatures are 40° F (4° C) or above. Do not apply when temperature is below freezing or will be overnight. If freezing conditions exist before application, let the surface thaw.

Equipment

Apply with a soft-fiber, tampico masonry washing brush or with low-pressure (50 psi max) spray equipment fitted with acid-resistant hoses and gaskets. Do not use pressure spray above 50 psi. This drives the cleaner into the surface, making rinse difficult and may cause stains. Do not atomize.

Rinse with enough water and pressure to flush spent cleaner and dissolved soiling from the masonry surface and surface pores without damage. Inadequate rinsing leaves residues which may stain the cleaned surface.

Masonry-washing equipment generating 400–1000 psi with a water flow rate of 6–8 gallons per minute is the best water/pressure combination for rinsing porous masonry. Use a 15–45° fan spray tip. Heated water (150–180° F; 65–82° C) may improve cleaning

efficiency. Use adjustable equipment for reducing water flow-rates and rinsing pressure as needed for sensitive surfaces.

NOTE: When cleaning sensitive surfaces such as manufactured stone, if testing shows pressure rinsing can be safely used, 400 psi is sufficient to rinse dissolved soiling and spent cleaner from the surface. Higher psi risks wand marks, eroded mortar joints and loss of surface color and texture.

Rinsing pressures greater than 1000 psi and fan spray tips smaller than 15° may permanently damage sensitive masonry. Water flow-rates less than 6 gallons per minute may reduce cleaning productivity and contribute to uneven cleaning results.

Storage and Handling

Store in a cool, dry place with adequate ventilation. Always seal container after dispensing. Do not alter or mix with other chemicals. Published shelf life assumes upright storage of factory-sealed containers in a dry place. Maintain temperature of 45–100° F (7–38° C). Do not double stack pallets. Dispose of unused product and container in accordance with local, state and federal regulations.

APPLICATION

Read "Preparation" and the Safety Data Sheet before use.

ALWAYS TEST a small area (minimum 4-ft x 4-ft) of each surface to confirm suitability and desired results before beginning overall application. Test each type of masonry and each type of stain. Test with the same equipment, recommended surface preparation and application procedures planned for general application. Let test area dry 3–7 days before inspection and approval. Make the test panel available for comparison throughout the cleaning project.

Dilution

Testing will indicate the proper dilution. Dilute Light Duty Concrete Cleaner with 2–6 parts clean water to one part concentrate, based on test results. Always pour cold water into empty bucket first, then carefully add product. Never use hot water.

Handle in high-density polyethylene or polypropylene containers only. No metal. Acidic materials and fumes attack metal.

Recommended dilutions for use on precast, monolithic and "unit" concrete surfaces:

Exposed Aggregate

- Removal of retarder, efflorescence, etc.
  1 part concentrate to 2 parts water

Form-Finished Concrete

- Rough-texture: 1 part concentrate to 2 parts water
- Standard finish: 1 part concentrate to 3 parts water

Cast Simulated Stone/Manufactured Stone

1 part concentrate to 3 parts water

Concrete Block, Slump Brick, Concrete Brick

1 part concentrate to 3 parts water

Architectural Smooth-Finished Concrete

1 part concentrate to 6 parts water

Typical Coverage Rates

Reference the Substrate Chart in this document. The coverage rate chart assumes an average coverage rate of 100 square feet per gallon of prepared cleaner.

When calculating the volume of cleaner required for porous, textured surfaces, assume 50 square feet per gallon of prepared cleaner.

For dense, smooth surfaces, assume up to 150 square feet per gallon of prepared cleaner.

Application Instructions

Multiple applications may etch acid-sensitive surfaces.

1. Working from the bottom to the top, always prewet surface with fresh water. When cleaning vertical surfaces, keep lower areas wet to avoid streaks.
2. Apply cleaner directly to surface with recommended masonry brush or low-pressure spray.
3. Let cleaner stay on the surface for 3–5 minutes or until stains are gone. Do not let cleaner dry on the surface, staining may result. If drying occurs, lightly wet treated surfaces with fresh water and reapply in a gentle scrubbing manner. If treated surfaces are left unattended, keep people away from the cleaner.
4. Reapply cleaner and rinse thoroughly with fresh water, working from the bottom to the top, to get all residues off the surface. If pressure rinsing equipment is not available, brush the surface while rinsing with clean water.

NOTE: Use only enough water to remove the spent cleaner and dissolved soiling from the surface. For manufactured stone, if tests show that pressure rinsing equipment can be used without removing color, do not exceed 400 psi.

Cleanup

Clean tools and equipment using fresh water.

WARRANTY

The information and recommendations made are based on our own research and the research of others, and are believed to be accurate. However, no guarantee of their accuracy is made because we cannot cover every possible application of our products, nor anticipate every variation encountered in masonry surfaces, job conditions and methods used. The purchasers shall make their own tests to determine the suitability of such products for a particular purpose.

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