



Technical Data Sheet

DOWSIL™ 794F Alkoxy Sealant

FEATURES & BENEFITS

- Neutral cure
- Low modulus, high elasticity
- Good unprimed adhesion to a variety of substrates
- Non-corrosive to metals
- Easy to apply and tool
- Low odor
- Conforms to ISO 11600-F and G-25LM
- Resistant to ozone, ultra-violet radiation and temperature extremes
- Contains fungicide

APPLICATIONS

- DOWSIL™ 794F Alkoxy Sealant is a one-part neutral curing, low modulus silicone alkoxy sealant specially formulated for the glazing and the weathersealing of all types of windows (PVC, wood, aluminum).
- DOWSIL 794F Alkoxy Sealant offers durable adhesion to most porous and non-porous substrates including masonry, brick, aluminum, metals, PVC, polyacrylate, polycarbonate, impregnated, varnished or painted wood, glass and glazed surfaces.
- DOWSIL 794F Alkoxy Sealant is mold and mildew resistant.

TYPICAL PROPERTIES

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

CTM*	Property	Unit	Result
	Cure system		Alkoxy
	Application temperature	°C	+5 to +40
		°F	+41 to +104
097B	Specific gravity	g/ml	1.01
364C	Extrusion	g/min	180
155A	Penetration	1/10 mm	150
677	Elastic recovery	%	>90
098	Skin-over time (23°C or 73°F, 50% R.H.)	minutes	15
095A	Tack-free time (23°C or 73°F, 50% R.H.)	minutes	50
663A	Cure rate (23°C or 73°F, 50% R.H.) 1 day	mm	1.8
2 mm thickness S2 dumb-bells (ASTM** D412)			
137A	E-Modulus 100%	MPa	0.23
137A	Tensile strength	MPa	1.0
137A	Elongation at break	%	500

*CTM: Corporate Test Method, copies of CTMs are available on request.

**ASTM: American Society for Testing and Materials.

TYPICAL PROPERTIES (continued)

Test	Property	Unit	Result
12 x 12 x 50 mm size T.A. joint (ISO*** 8339/DIN**** 52455-2)			
677	E-Modulus 100%	MPa	0.26
677	Tensile strength	MPa	0.4
677	Elongation at break	%	250
677	Failure mode	% Cohesive failure	100
99E	Hardness		10

***DIN: Deutsche Industrie Norm.

****ISO: International Standardization Organization.

TECHNICAL SPECIFICATIONS AND STANDARDS

DIN 18545 E

AENOR

ISO 11600 F 25LM (mortar primed)

ISO 11600 G 25LM (F and G—for certain colors)



HOW TO USE

Surface preparation

Surfaces must be clean, dry and free from grease and dust. Non-porous surfaces, such as aluminum, glass etc., should be cleaned with a suitable solvent for the substrate. Porous substrates such as concrete, brickwork, mortar, etc. must be mechanically cleaned to remove loose particles using a steel brush, sanding disc, or any similar means. The use of a primer is recommended to obtain durable adhesion performance on such porous substrates, or if water immersion is expected to occur during the service life of the assembly. Otherwise, primers are not usually required but might be needed for some specific substrates to achieve optimum adhesion.

Priming

This product adheres to a variety of porous and non-porous substrates, e.g. glass, tiles, ceramics, glazed tiles and clinkers; metals, e.g. aluminum, steel,

zinc or copper; impregnated, varnished or painted wood and many plastics. Users must carry out their own tests due to the great variety of substances. In many cases, adhesion can be improved by pretreatment of the substrates with a primer:

- DOWSIL™ 1200 OS for metals.
- DOWSIL™ Primer P for concrete and brick.

How to apply

DOWSIL 794F Alkoxy Sealant is ready to use. After suitable joint preparation and masking, the sealant should be gunned into place and tooled within 5 to 10 minutes, using a spatula that has been dipped in silicone oil or soapy water. After tooling, tooling aids and masking tape should be immediately removed. DOWSIL 794F Alkoxy Sealant cures reacting with atmospheric moisture. Typical properties are given for testing conditions of 23°C (73°F) and 50% R.H.

Uncured material can be removed by using a solvent. Cured material may be removed by abrasion or other mechanical means.

Joint design

The sealant joint width should be designed to accommodate the movement capability of the sealant. In general, the minimum joint width should be 6 mm. For joints between 6–12 mm wide, a seal depth of 6 mm is recommended.

For joints above 12 mm wide, a width to depth ratio of 2:1 should be used, up to a maximum depth of 12 mm. For joint dimensions greater than 25 mm, please contact the technical service department.

In situations where fillet joints are needed, a minimum of 6 mm sealant bite to each substrate is recommended. Bond beaker tape or a backer rod should be used as back-up material to provide backpressure and avoid three-sided adhesion that limits sealant movement capability.

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 WWW.CONSUMER.DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

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DOWSIL™ 794F Alkoxy Sealant

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USABLE LIFE AND STORAGE

When stored at or below 30°C (86°F) in the original unopened containers, this product has a usable life of 12 months from the date of production.

PACKAGING INFORMATION

This product is available in 310 ml cartridges, 400 and 600 ml sausages, and 205 kg drums in transparent and standard colors. A range of colors are available. Please contact your local Dow sales office for the full range.

LIMITATIONS

Do not use DOWSIL 794F Alkoxy Sealant in totally confined spaces because the sealant requires atmospheric moisture to cure. Bleeding can occur on porous substrates such as concrete, marble, granites and other natural stones. On these sensitive substrates, specific testing should be carried out.

DOWSIL 794F Alkoxy Sealant has to be properly stored prior to use. The contact with strong oxidizers (e.g. hydrogen peroxide) or direct UV exposure in an uncured state may lead to a yellowing effect of the sealant.

DOWSIL 794F Alkoxy Sealant is not recommended for structural glazing or insulated glazing applications. DOWSIL 794F Alkoxy Sealant is neither suitable for direct food contact use nor for direct medical nor pharmaceutical applications.

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, www.consumer.dow.com or consult your local Dow representative.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

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