SNAPSHOOT
ENGINEERED FOR A SAFER TOMORROW

현장을 이해하고, 필요한 솔루션을 연결합니다.

산업안전 · 추락방지 시스템
산업용 소재 · 건축자재
제품 제안부터 공급·시공·설치·교육까지



COMPANY INFORMATION

스냅슛 (SNAPSHOOT)

ADDRESS (15431) 경기도 안산시 단원구 풍전로 37-9 트리플렉스 301동 118호
TEL 0507-1374-9229
FAX 0504-481-6749
E-MAIL bkkim@snapshoot.co.kr

TECHNICAL DOCUMENTS

인증서 · 데이터시트 · 기술자료

제품의 규격과 성능, 인증 및 적용 조건을 확인하기 위한 자료입니다.

ABOUT SNAPSHOOT

제품 공급을 넘어, 현장에 맞는 해결책으로

스냅슛은 산업현장의 작업 환경과 요구 조건을 바탕으로
적합한 제품과 시스템을 제안합니다. 현장 실사를 통해 설치 조건을 확인하고,
공급부터 시공·설치 및 사용 교육까지 필요한 과정을 함께합니다.

추락방지 시스템

안전대부착설비 · 수평·수직 라이프라인
레일 시스템 · 리지드 포스트

밀폐공간 진입·구조 솔루션

데빗암 · 삼각대 · 구조용 윈치
윈치 안전블록 · 구조장비

산업안전 보호구

전신형 안전대 · 랜야드 · 안전블록
작업 환경에 맞춘 개인보호구

산업용 소재·건축자재

산업용 테이프 · 접착제 · 기능성 소재
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홈페이지 바로가기 →
문서 라이브러리 바로가기 →
시공사례 바로가기 →
문의하기 →

본 페이지는 스냅슛의 자료 제공 안내용 표지입니다. 첨부된 인증서 및 기술자료의 발행 주체, 인증 대상과 적용 범위는 해당 원문을 기준으로 확인해 주세요.



3M Science. Applied to Life.™

Last Revision Date: December, 2025

Supersedes: April, 2025

Technical Data Sheet

3M™ Scotch-Weld™ Epoxy Adhesive 1469

Additional Info

Regulatory Info/SDS

Product Description

3M™ Scotch-Weld™ Epoxy Adhesive 1469 is a one-part, 100% solids, thermosetting liquid adhesive.

Product Features

• Exceptionally high strength properties at service temperatures from -70 to 250°F (-57 to 121°C).
• Higher impact, peel and bond strength properties than normally attainable in many epoxy based adhesives.
• Little or no volatile by-products given off during cure. This unique property makes Scotch-Weld™ Epoxy Adhesive 1469 particularly useful for bonding many impervious surfaces and enables curing under little or no pressure.
• Only pressure sufficient to ensure contact between mating surfaces is required.
• Easy application by knife coating, trowel, rollercoating, pump and high pressure injection methods.
• Excellent retention of strength after aging in many environments.
• Scotch-Weld™ Epoxy Adhesive 1469 conforms to MMM-A-132 and MIL-A-8623A Type III.

Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Typical Uncured Physical Properties

Attribute Name	Value
Color	White — Cream [1]
Viscosity	40,000 — 80,000 cP [2]
Net Weight	1.20 ± 0.02
Flow Characteristics	16 °C (60 °F) [3]
Cure Initiation Temperature	138 — 149 °C (280 — 300 °F)
Consistency	Flowable Syrup
Base Resin	Modified Epoxy

[1] Colors may vary from nearly white to yellow/amber. Adhesive performance is not affected by color variation.
[2] Brookfield RVF No. 7 Spindle @ 4 rpm
[3] Initiation Temperature

Typical Physical Properties

Attribute Name	Value
Cured Color	White — Cream
Flash Point	104 °C (220 °F)

Typical Cured Characteristics

Creep Rupture

Dwell Time: 192 h

Temperature	Environmental Condition	Value
149 °C (300 °F)	5.5 MPa (800 psi)	0 cm (0 in)
23 °C (73 °F)	11 MPa (1600 psi)	0 cm (0 in)

Handling/Application Information

Directions for Use

A thoroughly cleaned, dry, grease free surface is essential for optimum performance. Cleaning methods which will produce a breakfree water film on metal surfaces are generally satisfactory. Surface preparations should be fully evaluated with the adhesive, especially if the need for resistance to specific environments is anticipated.
Recommended Cleaning Procedure for Aluminum:
1. Vapor Degrease – Perchloroethylene condensing vapors for 5-10 minutes.
2. Alkaline Degrease – Oakite 164 solution (9-11 oz./gallon of water) at 190 ± 10°F (88 ± 5°C) for 10-20 minutes. Rinse immediately in large quantities of cold running water.
3. Acid Etch* – Place panels in either of the following solutions for 10 minutes at 150 ± 5°F (67 ± 2°C).

	A (FPL Etch*)	B
Distilled Water	30 parts	30 parts
Sulfuric Acid (con.)	10 parts	10 parts
Sodium Dichromate	1 part	4 parts

4. Rinse – Rinse panels in clear running water.
5. Dry – Air dry, 15 minutes. Force dry, 10 minutes at 150 ± 10°F (67 ± 5°C).
6. It is advisable to coat the freshly cleaned surfaces with adhesive within 4 hours after surface preparation.
*When using etch solutions, proper protective equipment for eyes, skin and respiratory system should be used.
Adhesive Layup:
Care should be taken to avoid contaminating adhesive and cleaned aluminum.
Contamination could hinder wetting action of the adhesive and cause inferior bonds.
Bond Line Thickness:
Optimum performance is obtained with a 2-5 mil cured bond line thickness.
Cleanup:
Excess adhesive and equipment may be cleaned up, prior to curing, with ketone* type solvent.
*Note: When using solvents, extinguish all ignition sources, including pilot lights, and follow manufacturer's precautions and directions for use.

Application Techniques

3M™ Scotch-Weld™ Epoxy Adhesive 1469 can be applied by a spatula, knife coating, notched trowel, or by extruding into place. Standard equipment is available which allows pumping directly from five-gallon pails. When extruded through a Pyles-Semco cartridge (3/32" orifice 55 psi line pressure), the delivery rate at 72°F (22°C) is approximately 40 grams/minute. A lower viscosity for ease of application can be obtained by warming Scotch-Weld 1469 to 100-120°F (38-49°C). Note: Scotch-Weld 1469 may start to thicken if held at 120°F (49°C) for more than 3 hours.

Application Equipment

Pump – 9 to 1 ratio minimum, double acting, divorced design, ball type check valve, 11 cubic inch/cycle, with 41/4" air motor.

Primer – Disc type inductor plate.

Caution: Care should be taken not to incorporate air into the adhesive during application. Entrapped air can expand during cure to give a porous and weakened bond.

Cure Conditions

Flow and Cure Initiation Temperatures:
Normal flow and cure initiation temperatures for 3M™ Scotch-Weld™ Epoxy Adhesive 1469 are as follows:
Flow Temperature:60°F (16°C)
Cure Initiation Temperature:280-300°F (138-149°C)
Cure Pressure: The only pressure needed during the cure of Scotch-Weld 1469 is that required to keep parts in alignment and to overcome distortion and thermal expansion in the adherends.
Cure Temperature: The cure temperature may be varied from 300°F to 450°F (149°C to 232°C), depending on the materials being bonded, equipment available and bond properties desired. Scotch-Weld 1469 will wet the surface to which it has been applied. Heating at temperatures above 300°F (149°C) will chemically convert the adhesive into a high strength solvent-resistant bond. Cure temperatures in excess of 400°F (204°C) yield useful, but lower than optimum strengths. At these temperatures the time cycle must be determined for specific application. Bond line temperature rise rates from 2°F to 200°F (-17°C to 93°C) per minute can be used without affecting strength properties. Curing ovens must be vented to the outdoors.
Caution: Large volumes of Scotch-Weld 1469, if heated rapidly at temperatures above 300°F (149°C), will exotherm and char. This will generally occur if an adhesive thickness of greater than 1/8" thick is cured.
Cure Time: Cure time depends on the cure temperature used, methods of heat application, production limitations and bond properties required. Since no two bonding operations are exactly alike, it is suggested that a few simple experiments be conducted, varying both temperature and cure time to determine optimum conditions for the particular application.

Cure Cycle

The following cure cycle is suggested to obtain dense bond lines and was used to obtain the strengths reported in the product performance section:
1. Apply a pressure of 25 psi prior to reaching a bond line temperature of 150°F (67°C) and maintain throughout the cycle. (Pressure was used to insure flat test panels.)
2. Raise the bond line temperature from ambient to 350°F (177°C). Bonds were placed in a hot press @ 350°F (177°C) and cooled to below 200°F (93°C) prior to removal.
3. Cure for 120 ± 1 minutes at 350 ± 2°F (177 ± 1°C).
4. Cool to below 200°F (93°C) bond line temperature prior to release of pressure. (In laboratory tests, panels have been removed at 350°F (177°C) with no adverse effects.)

Industry Specifications

MMM-A-132
MIL-A-8623A Type III

Storage and Shelf Life

For best performance, use product within 730 days from the date of manufacture when stored at 0°C (32°F) or below in the original, unopened packaging. Higher temperatures reduce normal storage life. Allow product to reach room temperature prior to use.

Precautionary Information

Refer to Product Label and Material Safety Data Sheet for health and safety information before using this product. For additional health and safety information, call 1-800-364-3577

Automotive Disclaimer

Select Automotive Applications:
This product is an industrial product and has not been designed or tested for use in certain automotive applications, such as automotive electric powertrain battery or high voltage applications, which may require the product to be manufactured in a IATF certified facility, meet a Ppk of 1.33 for all properties, undergo an automotive production part approval process (PPAP), or fully adhere to automotive design or quality system requirements (e.g., IATF 16949 or VDA 6.3). Customer assumes all responsibility and risk if customer chooses to use this product in these applications.

Information

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ISO Statement

This product was manufactured under a 3M quality system registered to ISO 9001 standards.

3M™ Industrial Adhesives and Tapes Division
3M Center, St. Paul, MN 55144-1000
3M.com/iatd

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