English
Last Revision Date: May, 2022

Technical Data Sheet

3M™ Scotch-Weld™ Epoxy Adhesive DP125 Translucent

Product Description

3M™ Scotch-Weld™ Epoxy Adhesive DP125 Translucent is a faster curing version of the 3M™ Scotch-Weld™ Epoxy Adhesive 2216 Translucent B/A. The worklife and cure time has been reduced from hours and days for the Scotch-Weld epoxy
adhesive 2216 Translucent B/A to minutes and hours. Final shear and peel strengths remain similar or even slightly improved compared to the Scotch-Weld epoxy adhesive 2216 Translucent.

Product Features

- 25 minute worklife
- Flexible
- Translucent
- High peel and shear strength
- 1:1 mix ratio

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 Mixed Physical Properties

Property	Values	Additional Information
Open Time	25 min	View
Notes: POR=Pop Off Rubber		
Worklife, 2g mixed	25 min	View
Test Method: 3M C3180 Temp C: 23C Temp F: 73F Notes: Procedure involves periodically measuring a 2 gram mixed mass for self leveling and wetting properties. This time will also approximate the usable worklife in an 3M™ EPX™ Applicator mixing nozzle.		
Worklife, 20g mixed	18 min	View
Test Method: 3M C3180 Temp C: 23C Temp F: 73F Notes: Procedure involves periodically measuring a 2 gram mixed mass for self leveling and wetting properties. This time will also approximate the usable worklife in an 3M™ EPX™ Applicator mixing nozzle.		
Time to Handling Strength	≈2.5 hr	View

Temp C: 23C
Temp F: 73F

Notes: Minimum time required to achieve 50 psi of overlap shear strength. Cure times are approximate and depend on adhesive temperature.

Tack Free Time	≈2 hr	View

Test Method: 3M C3173

Notes: Involves dispensing 0.5 gram amount of adhesive onto substrate and testing periodically for no adhesive transfer to metal spatula.

Time to Full Cure	7 day	View

Notes: The cure time is defined as that time required for the adhesive to achieve a minimum of 80% of the ultimate strength as measured by aluminum-aluminum OLS.

Time to Full Cure	2.5 hr	View

Temp C: 23C
Temp F: 73F

Notes: The cure time is defined as that time required for the adhesive to achieve a minimum of 80% of the ultimate strength as measured by aluminum-aluminum OLS.

Rate of Strength Buildup 6hr	300 lb/in²	View

Test Method: ASTM D1002

Test Name: Overlap Shear Strength
Dwell/Cure Time: 6.0
Dwell Time Units: hr
Temp C: 23C
Temp F: 72F
Substrate: Etched Aluminum

Notes: 1 in wide 1/2 in overlap specimens with 1 in x 4 in substrates. 0.005-0.008in bondline. Jaw separation 0.1 in/min. Substrate thickness 0.05-0.064 in

Rate of Strength Buildup 1day	1300 lb/in²	View

Test Method: ASTM D1002

Test Name: Overlap Shear Strength
Dwell/Cure Time: 1.0
Dwell Time Units: day
Temp C: 23C
Temp F: 72F
Substrate: Etched Aluminum

Notes: 1 in wide 1/2 in overlap specimens with 1 in x 4 in substrates. 0.005-0.008in bondline. Jaw separation 0.1 in/min. Substrate thickness 0.05-0.064 in

Rate of Strength Buildup 7day	1900 lb/in²	View

Test Method: ASTM D1002

Test Name: Overlap Shear Strength
Dwell/Cure Time: 7.0
Dwell Time Units: day
Temp C: 23C
Temp F: 72F
Substrate: Etched Aluminum

Notes: 1 in wide 1/2 in overlap specimens with 1 in x 4 in substrates. 0.005-0.008in bondline. Jaw separation 0.1 in/min. Substrate thickness 0.05-0.064 in

Rate of Strength Buildup 1month	2050 lb/in²	View

Test Method: ASTM D1002

Test Name: Overlap Shear Strength
Dwell/Cure Time: 1.0
Dwell Time Units: month
Temp C: 23C
Temp F: 72F
Substrate: Etched Aluminum

Notes: 1 in wide 1/2 in overlap specimens with 1 in x 4 in substrates. 0.005-0.008in bondline. Jaw separation 0.1 in/min. Substrate thickness 0.05-0.064 in

Rate of Strength Buildup	100 lb/in²	View

Test Method: ASTM D1002

Test Name: Overlap Shear Strength
Dwell/Cure Time: 3.0
Dwell Time Units: hr
Temp C: 23C
Temp F: 72F
Substrate: Etched Aluminum

Notes: 1 in wide 1/2 in overlap specimens with 1 in x 4 in substrates. 0.005-0.008in bondline. Jaw separation 0.1 in/min. Substrate thickness 0.05-0.064 in

Typical Physical Properties

Property	Values	Additional Information
Color	Translucent	View

Test Name: Mixed

Color	Translucent	View

Test Name: Cured

Typical Uncured Physical Properties

Property	Values	Additional Information
Base Color	Clear	
Accelerator Color	Amber	
Base Viscosity	2,000-8,000 cP	View

Test Method: 3M C1d

Temp C: 27C
Temp F: 80F

Notes: Procedure involves Brookfield RVF, #7 spindle, 20 rpm. Measurement taken after 1 minute rotation.

Accelerator Viscosity	22,000-33,000 cP	View

Test Method: 3M C1d

Temp C: 27C
Temp F: 80F

Notes: Procedure involves Brookfield RVF, #7 spindle, 20 rpm. Measurement taken after 1 minute rotation.

Base Resin	Epoxy/Amine
Base Net Weight	9.3 to 9.7 lb/gal
Accelerator Net Weight	8.4 to 8.6 lb/gal
Mix Ratio by Volume (B:A)	1:1
Mix Ratio by Weight (B:A)	1.10:1

Typical Performance Characteristics

Additional Test notes

The following product performance data was obtained in the 3M laboratory under the conditions specified. The following data show typical results obtained with the 3M™ Scotch-Weld™ Adhesives when applied to properly prepared substrates, cured, and tested according to the specifications indicated. The data was generated using the 3M™ EPX™ Applicator System equipped with an EPX applicator static mixer, according to manufacturer's directions. Thorough hand mixing should afford comparable results.

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

Property	Values	Additional Information
Elongation (%)	150 %	View

Test Method: ASTM D882

Dwell/Cure Time: 2.0
Dwell Time Units: hr
Temp C: 23C
Temp F: 72F
Environmental Condition: +2 hr @ 160F(71C)

Notes: Samples were 2 in. dumbbells with 0.125 in. neck and .030 in. sample thickness. Separation rate was 2 inches per minute.

T-Peel Adhesion -55C Etched Aluminum	3 lb/in width	View

Test Method: ASTM D1876

Test Name: T-Peel Adhesion
Temp C: -55C
Temp F: -67F
Substrate: Etched Aluminum

Notes: T-peel strengths were measured on 1 in. wide bonds at 73°F (23°C). The testing jaw separation rate was 20 inches per minute. The substrates were 0.020 in. thick. Samples dwelled for 24 hrs at 23C + 2 hrs at 71C before testing.

T-Peel Adhesion 23C Etched Aluminum	35 lb/in width	View

Test Method: ASTM D1876

Test Name: T-Peel Adhesion
Temp C: 23C
Temp F: 73F
Substrate: Etched Aluminum

Notes: T-peel strengths were measured on 1 in. wide bonds at 73°F (23°C). The testing jaw separation rate was 20 inches per minute. The substrates were 0.020 in. thick. Samples dwelled for 24 hrs at 23C + 2 hrs at 71C before testing.

T-Peel Adhesion 49C Etched Aluminum	10 lb/in width	View

Test Method: ASTM D1876

Test Name: T-Peel Adhesion
Temp C: 49C
Temp F: 120F
Substrate: Etched Aluminum

Notes: T-peel strengths were measured on 1 in. wide bonds at 73°F (23°C). The testing jaw separation rate was 20 inches per minute. The substrates were 0.020 in. thick. Samples dwelled for 24 hrs at 23C + 2 hrs at 71C before testing.

T-Peel Adhesion 66C Etched Aluminum	3 lb/in width	View

Test Method: ASTM D1876

Test Name: T-Peel Adhesion
Temp C: 66C
Temp F: 150F
Substrate: Etched Aluminum

Notes: T-peel strengths were measured on 1 in. wide bonds at 73°F (23°C). The testing jaw separation rate was 20 inches per minute. The substrates were 0.020 in. thick. Samples dwelled for 24 hrs at 23C + 2 hrs at 71C before testing.

T-Peel Adhesion 82C Etched Aluminum	2 lb/in width	View

Test Method: ASTM D1876

Test Name: T-Peel Adhesion
Temp C: 82C
Temp F: 180F
Substrate: Etched Aluminum

Notes: T-peel strengths were measured on 1 in. wide bonds at 73°F (23°C). The testing jaw separation rate was 20 inches per minute. The substrates were 0.020 in. thick. Samples dwelled for 24 hrs at 23C + 2 hrs at 71C before testing.

Solvent Resistance Acetone 1hr	A	View

Environmental Condition: 24hr @ RT + 2hr @ 160F(71C) + Acetone 1hr

Notes: Cured OLS samples immersed in solvent and after dwell, examined for surface attack compared to control. A: Unaffected, no color or texture change B: Slight attack, slight swelling of surface. C: Moderate/severe attack, extreme swelling of surface.

Solvent Resistance Acetone 1month	A	View

Environmental Condition: 24hr @ RT + 2hr @ 160F(71C) + Acetone 1mo

Notes: Cured OLS samples immersed in solvent and after dwell, examined for surface attack compared to control. A: Unaffected, no color or texture change B: Slight attack, slight swelling of surface. C: Moderate/severe attack, extreme swelling of surface.

Solvent Resistance Isopropyl Alcohol 1hr	A	View

Environmental Condition: 24hr @ RT + 2hr @ 160F(71C) + Isopropyl Alcohol 1hr

Notes: Cured OLS samples immersed in solvent and after dwell, examined for surface attack compared to control. A: Unaffected, no color or texture change B: Slight attack, slight swelling of surface. C: Moderate/severe attack, extreme swelling of surface.

Solvent Resistance Isopropyl Alcohol 1month	A	View

Environmental Condition: 24hr @ RT + 2hr @ 160F(71C) + Isopropyl Alcohol 1mo

Notes: Cured OLS samples immersed in solvent and after dwell, examined for surface attack compared to control. A: Unaffected, no color or texture change B: Slight attack, slight swelling of surface. C: Moderate/severe attack, extreme swelling of surface.

Solvent Resistance Freon TF 1hr	A	View

Environmental Condition: 24hr @ RT + 2hr @ 160F(71C) + Freon TF 1hr

Notes: Cured OLS samples immersed in solvent and after dwell, examined for surface attack compared to control. A: Unaffected, no color or texture change B: Slight attack, slight swelling of surface. C: Moderate/severe attack, extreme swelling of surface.

Solvent Resistance Freon TF 1month	A	View

Environmental Condition: 24hr @ RT + 2hr @ 160F(71C) + Freon TF 1mo

Notes: Cured OLS samples immersed in solvent and after dwell, examined for surface attack compared to control. A: Unaffected, no color or texture change B: Slight attack, slight swelling of surface. C: Moderate/severe attack, extreme swelling of surface.

Solvent Resistance Freon TMC 1hr	A	View

Environmental Condition: 24hr @ RT + 2hr @ 160F(71C) + Freon TMC 1hr

Notes: Cured OLS samples immersed in solvent and after dwell, examined for surface attack compared to control. A: Unaffected, no color or texture change B: Slight attack, slight swelling of surface. C: Moderate/severe attack, extreme swelling of surface.

Solvent Resistance Freon TMC 1month	B	View

Environmental Condition: 24hr @ RT + 2hr @ 160F(71C) + Freon TMC 1mo

Notes: Cured OLS samples immersed in solvent and after dwell, examined for surface attack compared to control. A: Unaffected, no color or texture change B: Slight attack, slight swelling of surface. C: Moderate/severe attack, extreme swelling of surface.

Solvent Resistance 1, 1, 1 - Trichloroethane 1hour	A	View

Environmental Condition: 24hr @ RT + 2hr @ 160F(71C) + 1, 1, 1 - Trichloroethane 1hr

Notes: Cured OLS samples immersed in solvent and after dwell, examined for surface attack compared to control. A: Unaffected, no color or texture change B: Slight attack, slight swelling of surface. C: Moderate/severe attack, extreme swelling of surface.

Solvent Resistance 1, 1, 1 - Trichloroethane 1month	A	View

Environmental Condition: 24hr @ RT + 2hr @ 160F(71C) + 1, 1, 1 - Trichloroethane 1mo

Notes: Cured OLS samples immersed in solvent and after dwell, examined for surface attack compared to control. A: Unaffected, no color or texture change B: Slight attack, slight swelling of surface. C: Moderate/severe attack, extreme swelling of surface.

Solvent Resistance RMA Flux 1hr	A	View

Environmental Condition: 24hr @ RT + 2hr @ 160F(71C) + RMA Flux 1hr

Notes: Cured OLS samples immersed in solvent and after dwell, examined for surface attack compared to control. A: Unaffected, no color or texture change B: Slight attack, slight swelling of surface. C: Moderate/severe attack, extreme swelling of surface.

Solvent Resistance RMA Flux 1month	A	View

Environmental Condition: 24hr @ RT + 2hr @ 160F(71C) + RMA Flux 1mo

Notes: Cured OLS samples immersed in solvent and after dwell, examined for surface attack compared to control. A: Unaffected, no color or texture change B: Slight attack, slight swelling of surface. C: Moderate/severe attack, extreme swelling of surface.

Typical Cured Characteristics

Property	Values	Additional Information
Shore D Hardness	55	View
Test Method: ASTM D2240 Temp C: 23C Temp F: 73F		
Tensile Strength	2500 lb/in²	View
Test Method: ASTM D882 Dwell/Cure Time: 2.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: +2 hr @ 160F(71C) Notes: Samples were 2 in. dumbbells with 0.125 in. neck and .030 in. sample thickness. Separation rate was 2 inches per minute.		
Weight Loss by Thermal Gravimetric Analysis (TGA)	1 %	View
Test Method: ASTM E1131 Temp C: 164C Temp F: 327F Notes: Weight loss by Thermal Gravimetric Analysis reported as that temperature at which 5% weight loss occurs by TGA in air at 5°C (9°F) rise per minute.		
Thermal Shock Resistance	Pass 5 cycles without cracking	View
Test Method: 3M C3174 Notes: Involves potting a metal washer into a 2 in. x 0.5 in. thick section and cycling this test specimen to colder and colder temperatures.		
Weight Loss by Thermal Gravimetric Analysis (TGA)	301 °C	View
Test Method: ASTM E1131 Notes: Weight loss by Thermal Gravimetric Analysis reported as that temperature at which 5% weight loss occurs by TGA in air at 5°C (9°F) rise per minute.		
Weight Loss by Thermal Gravimetric Analysis (TGA)	574 F	View
Test Method: ASTM E1131 Notes: Weight loss by Thermal Gravimetric Analysis reported as that temperature at which 5% weight loss occurs by TGA in air at 5°C (9°F) rise per minute.		

Electrical and Thermal Properties

Property	Values	Additional Information
Glass Transition Temperature (Tg)	15 °C	View
Notes: Glass Transition Temperature (Tg) determined using DSC Analyzer with a heating rate of 68°F (20°C) per minute. Second heat values given.		
Glass Transition Temperature (Tg)	59 °F	View

Notes: Glass Transition Temperature (Tg) determined using DSC Analyzer with a heating rate of 68°F (20°C) per minute. Second heat values given.

Glass Transition Temperature (Tg)	3 °C	View

Notes: Glass Transition Temperature (Tg) determined using DSC Analyzer with a heating rate of 68°F (20°C) per minute. Second heat values given.

Glass Transition Temperature (Tg)	37 °F	View

Notes: Glass Transition Temperature (Tg) determined using DSC Analyzer with a heating rate of 68°F (20°C) per minute. Second heat values given.

Dielectric Constant 1KHz	6.3	View

Test Method: ASTM D150

Temp C: 23C
Temp F: 72F

Dielectric Constant 1MHz	0.14	View

Test Method: ASTM D150

Temp C: 23C
Temp F: 72F

Thermal Conductivity	0.37 x 10^-3 Cal/s/cm/°C	View

Test Method: C177

Temp F: 110F

Notes: Thermal conductivity determined using C-matic Instrument using 2 in. diameter samples.

Thermal Conductivity	15.4 W/m/K	View

Test Method: C177

Temp F: 110F

Notes: Thermal conductivity determined using C-matic Instrument using 2 in. diameter samples.

Thermal Conductivity	0.089 (btu-ft)/(h-ft²-°F)	View

Test Method: C177

Temp F: 110F

Notes: Thermal conductivity determined using C-matic Instrument using 2 in. diameter samples.

Volume Resistivity	1.2 x 10^11 Ω-cm	View

Test Method: ASTM D257

Temp C: 23C
Temp F: 73F

Coefficient of Thermal Expansion	112 m/m/°C	View

Notes: TCE determined using TMA Analyzer using a heating rate of 10°C per minute. Second heat values given.

Coefficient of Thermal Expansion

190 m/m/°C	View ^

Notes: TCE determined using TMA Analyzer using a heating rate of 10°C per minute. Second heat values given.

Storage and Shelf Life

Store products at 60-80°F (16-27°C) for maximum shelf life.These products have a shelf life of 15 months in duo-pak cartridges.

Bottom Matter

3M
Industrial Adhesives and Tapes Division
3M Center, Building 225-3S-06
St. Paul, MN 55144-1000
800-362-3550

Trademarks

Automotive Disclaimer

Automotive Applications: This product is an industrial product and has not been designed or tested for use in certain automotive applications, including, but not limited to, automotive electric powertrain battery or high voltage applications. This product does not fully adhere to typical automotive design or quality system requirements, such as IATF 16949 or VDA 6.3. This product may not be manufactured in an IATF certified facility and may not meet a Ppk of 1.33 for all properties. The product may not undergo an automotive production part approval process (PPAP). Customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's automotive application and for conducting incoming inspections before use of the product. Failure to do so may result in injury, death, and/or harm to property. No written or verbal statement, report, data or recommendation by 3M related to automotive use of the product shall have any force or effect unless in an agreement signed by the Technical Director of 3M's Automotive Division. Customer assumes all responsibility and risk if customer chooses to use this product in an automotive electric powertrain battery or high voltage application, and 3M will not be liable for any loss or damage arising from or related to the 3M product or customer's use of the product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity or recall costs), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability. In no event shall 3M be liable for any damages in excess of the purchase price paid for the product.
NOTWITHSTANDING ANY OTHER STATEMENT TO THE CONTRARY, 3M MAKES NO REPRESENTATIONS, WARRANTIES OR CONDITIONS WHATSOEVER, EXPRESS OR IMPLIED, REGARDING THE PRODUCT IF USED IN AN AUTOMOTIVE ELECTRIC POWERTRAIN BATTERY OR HIGH VOLTAGE APPLICATION, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY ON PERFORMANCE, LONGEVITY, SUITABILITY, COMPATIBILITY, OR INTEROPERABILITY, OR ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE.

Handling/Application Information

Application Equipment

For small or intermittent applications the 3M™ EPX™ Applicator System is a convenient method of application.

For larger applications these products may be applied by use of flow equipment.

Two part meter/mixing/proportioning/dispensing equipment is available for intermittent or production line use. These systems may be desirable because of their variable shot size and flow rate characteristics and are adaptable to many applications.

Directions for Use

1. For high strength structural bonds, paints, oxide films, oils, dust, mold release agents and all other surface contaminants must be completely removed. However, the amount of surface preparation directly depends on the required bond strength and the environmental aging resistance desired by user. For specific surface preparations on common substrates, see the section on surface preparation.2. Use gloves to minimize skin contact. Do not use solvents for cleaning hands.3. Mixing.For Duo Pak Cartridges3M™ Scotch-Weld™ Epoxy Adhesives DP125 Translucent and Gray are supplied in a dual syringe plastic duo-pak cartridge as part of the 3M™ EPX™ Applicator System. To use, simply insert the duo-pak cartridge into the EPX applicator and start the plunger into the cylinders using light pressure on the trigger. Next, remove the duopak cartridge cap and expel a small amount of adhesive to be sure both sides of the duo-pak cartridge are flowing evenly and freely. If automatic mixing of Part A and Part B is desired, attach the EPX applicator mixing nozzle to the duo-pak cartridge and begin dispensing the adhesive. For hand mixing, expel the

desired amount of adhesive and mix thoroughly. Mix approximately 15 seconds after uniform color is obtained.4. For maximum bond strength, apply adhesive evenly to both surfaces to be joined.5. Application to the substrates should be made within 20 minutes. Larger quantities and/or higher temperatures will reduce this working time.6. Join the adhesive coated surfaces and allow to cure at 60°F (16°C) or above until completely firm. Heat up to 200°F (93°C), will speed curing. These products will cure in 7 days @ 75°F (24°C).7. Keep parts from moving during cure. Contact pressure necessary. Maximum shear strength is obtained with a 3-5 mil bond line.8. Excess uncured adhesive can be cleaned up with ketone type solvents.**Note: When using solvents, extinguish all ignition sources, including pilot lights, and follow manufacturer's precautions and directions for use.Adhesive Coverage (typical): A 0.005 in. thick bondline will yield a coverage of 320 sqft/gallon.

Surface Preparation

For high strength structural bonds, paint, oxide films, oils, dust, mold release agents and all other surface contaminants must be completely removed. However, the amount of surface preparation directly depends on the required bond strength and the environmental aging resistance desired by user.

The following cleaning methods are suggested for common surfaces:

Steel:

1. Wipe free of dust with oil-free solvent such as acetone, isopropyl or alcohol solvents.*

2. Sandblast or abrade using clean fine grit abrasives.

3. Wipe again with solvent to remove loose particles.*

4. If a primer is used, it should be applied within 4 hours after surface preparation.

Aluminum:

1. Alkaline Degrease: Oakite 164 solution (9-11 oz./gallon water) at 190°F ± 10°F for 10-20 minutes. Rinse immediately in large quantities of cold running water.

2. Acid Etch: Place panels in the following solution for 10 minutes at 150°F ± 5°F .

Sodium Dichromate 4.1 - 4.9 oz./gallon

Sulfuric Acid, 66°Be 38.5 - 41.5 oz./gallon

2024-T3 aluminum (dissolved) 0.2 oz./gallon minimum

Tap water as needed to balance

3. Rinse: Rinse panels in clear running tap water.

4. Dry: Air dry 15 minutes; force dry 10 minutes at 150°F ± 10°F.

5. If primer is to be used, it should be applied within 4 hours after surface preparation.

Note: Read and follow supplier's environmental, health, and safety documentation for these chemicals prior to preparation of this solution.

Plastics/Rubber:

1. Wipe with isopropyl alcohol.*

2. Abrade using fine grit abrasives.

3. Wipe with isopropyl alcohol.*

Glass:

1. Solvent wipe surface using acetone or MEK.*

2. Apply a thin coating (0.0001 in. or less) of primer such as 3M™ Scotch-Weld™ Metal Primer EC3901 to the glass surfaces to be bonded and allow the primer to dry before bonding.

*Note: When using solvents, extinguish all ignition sources, including pilot lights, and follow manufacturer's precautions and directions for use.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/p/d/b40066448/
Safety Data Sheet SDS	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=DP125 Translucent

Family Group

Link Tags:

DP125 Translucent | DP125 Gray

Products	Open Time	Time to Handling Strength	Color
DP125 Translucent	25 min	≈2.5 hr	N/A
DP125 Gray	25 min	≈2.5 hr	Gray

ISO Statement

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001 standards.

Precautionary Information

Refer to Product Label and Safety Data Sheet for health and safety information before using this product. For additional health and safety information, call 1-800-364-3577 or (651) 737-6501.

Information

Technical Information: The technical information, guidance, and other statements contained in this document or otherwise provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license under any 3M or third party intellectual property rights is granted or implied with this information.

Product Selection and Use: Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

Warranty, Limited Remedy, and Disclaimer: Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

Limitation of Liability: Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

Disclaimer: 3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use. Unless specifically stated otherwise on the applicable product packaging or literature, these products are not intended, labeled, or packaged for sale to or use by consumers (e.g., for home, personal, primary or secondary school, recreational/sporting, or other uses not described in the applicable product packaging or literature), and must be selected and used in compliance with applicable health and safety regulations and standards (e.g., U.S. OSHA, ANSI), as well as all product literature, user instructions, warnings, and limitations, and the user must take any action required under any recall, field action or other product use notice. Misuse of 3M industrial and occupational products may result in injury, sickness, or death. For help with product selection and use, consult your on-site safety professional, industrial hygienist, or other subject matter expert. For additional product information, visit www.3M.com.