

February, 2019

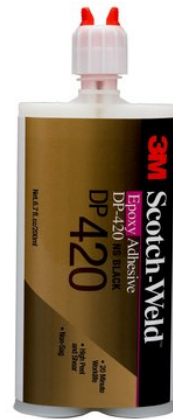
## 3M™ Scotch-Weld™ Epoxy Adhesive DP420 Off White

### Product Description

3M™ Scotch-Weld™ Epoxy Adhesives are high performance, two-part epoxy adhesives offering outstanding shear and peel adhesion, and very high levels of durability.

### Product Features

- High shear strength
- High peel strength
- Outstanding environmental performance
- Easy mixing
- 20 minute worklife
- Recognized as meeting UL 94 HB – Underwriters Laboratory Horizontal Burn Flammability Test



**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**

Property	Values	Notes
Color	Off-White	Colors may vary from nearly white to yellow/amber. Adhesive performance is not affected by color variation.
Base Color	White	
Accelerator Color	Amber	
Base Viscosity	20000 to 50000 cP	Viscosity measured using cone-and-plate viscometer; reported viscosity at 4 sec <sup>-1</sup> shear rate.
Accelerator Viscosity	8000 to 14000 cP	Viscosity measured using cone-and-plate viscometer; reported viscosity at 4 sec <sup>-1</sup> shear rate.
Base Resin	Epoxy	
Accelerator Resin	Amine	
Base Net Weight	9.3 to 9.7 lb/gal	
Accelerator Net Weight	9.0 to 9.4 lb/gal	
Mix Ratio by Volume (B:A)	2:1	
Mix Ratio by Weight (B:A)	2:0.97	

**Typical Mixed Physical Properties**

Property	Values	Temp C	Temp F	Notes
Worklife, 20g mixed	15 min	23C	73F	
Worklife, 10g mixed	20 min	23C	73F	
Worklife, 5g mixed	30 min	23C	73F	

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**Typical Mixed Physical Properties (continued)**

Property	Values	Temp C	Temp F	Notes
Time to Full Cure	2 hr	23C	73F	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.
Open Time	20 min			Maximum time allowed after applying adhesive to one substrate before bond must be closed and fixed in place. Cure times are approximate and depend on adhesive temperature. For hotmelts: The approximate bonding range of a 1/8" bead of molten adhesive on a non-metallic surface.

**Typical Performance Characteristics**

Property	Values	Method	Test Name	Dwell Time	Dwell Units	Temp C	Temp F	Environmental Conditions	Substrate	Substrate Notes	Surface Preparation	Failure mode
Overlap Shear Strength 7day Aluminum	3500 lb/in <sup>2</sup>	ASTM D1002	Overlap Shear Strength	7 day	day	23C	73F	50%RH	Aluminum	0.005-0.008 in. bondline	MEK	Adhesive Failure (AF), Substrate Failure (SF)
<p>Overlap Shear (OLS) strengths were measured on 1 in. wide 1/2 in. overlap specimens. These bonds were made individually using 1 in. x 4 in. pieces of substrate except for aluminum. Two panels 0.063 in. thick, 4 in. x 7 in. of 2024T-3 clad aluminum were bonded and cut into 1 in. wide samples after 24 hour.</p> <p>The separation rate of the testing jaws was 0.1 in. per minute for metals, 2 in. per minute for plastics and 20 in. per minute for rubbers. The thickness of the substrates were: steel, 0.060 in.; other metals, 0.05-0.064 in.; rubbers, 0.125 in.; plastics, 0.125 in.</p> <p>Cohesive Failure (CF), Adhesive Failure (AF), Substrate Failure (SF)</p>												

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Typical Performance Characteristics (continued)

Property	Values	Method	Test Name	Dwell Time	Dwell Temp Units	Temp C	Temp F	Environmental Conditions	Substrate	Surface Notes	Surface Preparation	Notes	Failure mode
Overlap Shear Strength 7day Cold Rolled Steel	2700 lb/in <sup>2</sup>	ASTM D1002	Overlap Shear Strength	7 day	day	23C	73F	50%RH Cold	Rolled Steel	0.005-0.008in	-MEK	Overlap Shear (OLS) strengths were measured on 1 in. wide 1/2 in. overlap specimens. These bonds were made individually using 1 in. x 4 in. pieces of substrate except for aluminum. Two panels 0.063 in. thick, 4 in. x 7 in. of 2024T-3 clad aluminum were bonded and cut into 1 in. wide samples after 24 hour. The separation rate of the testing jaws was 0.1 in. per minute for metals, 2 in. per minute for plastics and 20 in. per minute for rubbers. The thickness of the substrates were: steel, 0.060 in.; other metals, 0.05-0.064 in.; rubbers, 0.125 in.; plastics, 0.125 in. Cohesive Failure (CF), Adhesive Failure (AF), Substrate Failure (SF)	
Overlap Shear Strength 7day Copper	4000 lb/in <sup>2</sup>	ASTM D1002	Overlap Shear Strength	7 day	day	23C	73F	50%RH Copper		0.005-0.008in	-MEK	Overlap Shear (OLS) strengths were measured on 1 in. wide 1/2 in. overlap specimens. These bonds were made individually using 1 in. x 4 in. pieces of substrate except for aluminum. Two panels 0.063 in. thick, 4 in. x 7 in. of 2024T-3 clad aluminum were bonded and cut into 1 in. wide samples after 24 hour. The separation rate of the testing jaws was 0.1 in. per minute for metals, 2 in. per minute for plastics and 20 in. per minute for rubbers. The thickness of the substrates were: steel, 0.060 in.; other metals, 0.05-0.064 in.; rubbers, 0.125 in.; plastics, 0.125 in. Cohesive Failure (CF), Adhesive Failure (AF), Substrate Failure (SF)	

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Typical Performance Characteristics (continued)

Property	Values	Method	Test Name	Dwell Time	Dwell Temp Units	Temp C	Temp F	Environmental Conditions	Substrate	Substrate Notes	Surface Preparation	Notes	Failure mode
Overlap Shear Strength 7day Brass	4100 lb/in <sup>2</sup>	ASTM D1002	Overlap Shear Strength	7 day	day	23C	73F	50%RH	Brass	0.005-0.008in bondline	-MEK	Overlap Shear (OLS) strengths were measured on 1 in. wide 1/2 in. overlap specimens. These bonds were made individually using 1 in. x 4 in. pieces of substrate except for aluminum. Two panels 0.063 in. thick, 4 in. x 7 in. of 2024T-3 clad aluminum were bonded and cut into 1 in. wide samples after 24 hour. The separation rate of the testing jaws was 0.1 in. per minute for metals, 2 in. per minute for plastics and 20 in. per minute for rubbers. The thickness of the substrates were: steel, 0.060 in.; other metals, 0.05-0.064 in.; rubbers, 0.125 in.; plastics, 0.125 in. Cohesive Failure (CF), Adhesive Failure (AF), Substrate Failure (SF)	
Overlap Shear Strength 7day Stainless Steel	1700 lb/in <sup>2</sup>	ASTM D1002	Overlap Shear Strength	7 day	day	23C	73F	50%RH	Stainless Steel	0.005-0.008in bondline	-MEK	Overlap Shear (OLS) strengths were measured on 1 in. wide 1/2 in. overlap specimens. These bonds were made individually using 1 in. x 4 in. pieces of substrate except for aluminum. Two panels 0.063 in. thick, 4 in. x 7 in. of 2024T-3 clad aluminum were bonded and cut into 1 in. wide samples after 24 hour. The separation rate of the testing jaws was 0.1 in. per minute for metals, 2 in. per minute for plastics and 20 in. per minute for rubbers. The thickness of the substrates were: steel, 0.060 in.; other metals, 0.05-0.064 in.; rubbers, 0.125 in.; plastics, 0.125 in. Cohesive Failure (CF), Adhesive Failure (AF), Substrate Failure (SF)	

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Typical Performance Characteristics (continued)

Property	Values	Method	Test Name	Dwell Time	Dwell Units	Temp C	Temp F	Environmental Conditions	Substrate	Substrate Notes	Surface Preparation	Notes	Failure mode
Overlap Shear Strength 7day ABS	320 lb/in <sup>2</sup>	ASTM D1002	Overlap Shear Strength	7 day	day	23C	73F	50%RH	HABS	0.005-0.008 in	-IPA Wipe bondline	Overlap shear (OLS) strengths were measured on 1 in. wide 1/2 in. overlap specimens. These bonds were made individually using 1 in. x 4 in. pieces of substrate except for aluminum. Two panels 0.063 in. thick, 4 in. x 7 in. of 2024T-3 clad aluminum were bonded and cut into 1 in. wide samples after 24 hour. The separation rate of the testing jaws was 0.1 in. per minute for metals, 2 in. per minute for plastics and 20 in. per minute for rubbers. The thickness of the substrates were: steel, 0.060 in.; other metals, 0.05-0.064 in.; rubbers, 0.125 in.; plastics, 0.125 in. Cohesive Failure (CF), Adhesive Failure (AF), Substrate Failure (SF)	
Overlap Shear Strength 7day ABS	500 lb/in <sup>2</sup>	ASTM D1002	Overlap Shear Strength	7 day	day	23C	73F	50%RH	HABS	0.005-0.008 in	-IPA Wipe bondline	Overlap shear (OLS) strengths were measured on 1 in. wide 1/2 in. overlap specimens. These bonds were made individually using 1 in. x 4 in. pieces of substrate except for aluminum. Two panels 0.063 in. thick, 4 in. x 7 in. of 2024T-3 clad aluminum were bonded and cut into 1 in. wide samples after 24 hour. The separation rate of the testing jaws was 0.1 in. per minute for metals, 2 in. per minute for plastics and 20 in. per minute for rubbers. The thickness of the substrates were: steel, 0.060 in.; other metals, 0.05-0.064 in.; rubbers, 0.125 in.; plastics, 0.125 in. Cohesive Failure (CF), Adhesive Failure (AF), Substrate Failure (SF)	

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Typical Performance Characteristics (continued)

Property	Values	Method	Test Name	Dwell Time	Dwell Units	Temp C	Temp F	Environmental Conditions	Substrate	Substrate Notes	Surface Preparation	Notes	Failure mode
Overlap Shear Strength 7day Polyvinyl chloride (PVC)	220 lb/in <sup>2</sup>	ASTM D1002	Overlap Shear Strength	7	day	23C	73F	50%RH	Polyvinyl chloride (PVC)	0.008 in. bondline	IPA Wipe	Overlap shear (OLS) strengths were measured on 1 in. wide 1/2 in. overlap specimens. These bonds were made individually using 1 in. x 4 in. pieces of substrate except for aluminum. Two panels 0.063 in. thick, 4 in. x 7 in. of 2024T-3 clad aluminum were bonded and cut into 1 in. wide samples after 24 hour. The separation rate of the testing jaws was 0.1 in. per minute for metals, 2 in. per minute for plastics and 20 in. per minute for rubbers. The thickness of the substrates were: steel, 0.060 in.; other metals, 0.05-0.064 in.; rubbers, 0.125 in.; plastics, 0.125 in. Cohesive Failure (CF), Adhesive Failure (AF), Substrate Failure (SF)	
Overlap Shear Strength 7day Polyvinyl chloride (PVC)	300 lb/in <sup>2</sup>	ASTM D1002	Overlap Shear Strength	7	day	23C	73F	50%RH	Polyvinyl chloride (PVC)	0.008 in. bondline	IPA Wipe	Overlap shear (OLS) strengths were measured on 1 in. wide 1/2 in. overlap specimens. These bonds were made individually using 1 in. x 4 in. pieces of substrate except for aluminum. Two panels 0.063 in. thick, 4 in. x 7 in. of 2024T-3 clad aluminum were bonded and cut into 1 in. wide samples after 24 hour. The separation rate of the testing jaws was 0.1 in. per minute for metals, 2 in. per minute for plastics and 20 in. per minute for rubbers. The thickness of the substrates were: steel, 0.060 in.; other metals, 0.05-0.064 in.; rubbers, 0.125 in.; plastics, 0.125 in. Cohesive Failure (CF), Adhesive Failure (AF), Substrate Failure (SF)	

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Typical Performance Characteristics (continued)

Property	Values	Method	Test Name	Dwell Time	Dwell Units	Temp C	Temp F	Environmental Conditions	Substrate	Substrate Notes	Surface Preparation	Notes	Failure mode
Overlap Shear Strength 7day Polycarbonate (PC)	400 lb/in <sup>2</sup>	ASTM D1002	Overlap Shear Strength	7	day	23C	73F	50%RH	Polycarbonate (PC)	0.008 in. bondline	Aluminum	Overlap shear (OLS) strengths were measured on 1 in. wide 1/2 in. overlap specimens. These bonds were made individually using 1 in. x 4 in. pieces of substrate except for aluminum. Two panels 0.063 in. thick, 4 in. x 7 in. of 2024T-3 clad aluminum were bonded and cut into 1 in. wide samples after 24 hour. The separation rate of the testing jaws was 0.1 in. per minute for metals, 2 in. per minute for plastics and 20 in. per minute for rubbers. The thickness of the substrates were: steel, 0.060 in.; other metals, 0.05-0.064 in.; rubbers, 0.125 in.; plastics, 0.125 in. Cohesive Failure (CF), Adhesive Failure (AF), Substrate Failure (SF)	
Overlap Shear Strength 7day Polycarbonate (PC)	550 lb/in <sup>2</sup>	ASTM D1002	Overlap Shear Strength	7	day	23C	73F	50%RH	Polycarbonate (PC)	0.008 in. bondline	Aluminum	Overlap shear (OLS) strengths were measured on 1 in. wide 1/2 in. overlap specimens. These bonds were made individually using 1 in. x 4 in. pieces of substrate except for aluminum. Two panels 0.063 in. thick, 4 in. x 7 in. of 2024T-3 clad aluminum were bonded and cut into 1 in. wide samples after 24 hour. The separation rate of the testing jaws was 0.1 in. per minute for metals, 2 in. per minute for plastics and 20 in. per minute for rubbers. The thickness of the substrates were: steel, 0.060 in.; other metals, 0.05-0.064 in.; rubbers, 0.125 in.; plastics, 0.125 in. Cohesive Failure (CF), Adhesive Failure (AF), Substrate Failure (SF)	

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Typical Performance Characteristics (continued)

Property	Values		Method	Test Name	Dwell Time	Dwell Temp Units	Temp C	Temp F	Environmental Conditions	Substrate	Substrate Notes	Surface Preparation	Notes	Failure mode
Overlap Shear Strength 7day Acrylic (PMMA)	230 lb/in <sup>2</sup>	280 lb/in <sup>2</sup>	ASTM D1002	Overlap Shear Strength	7 day	day	23C	73F	50%RH	Acrylic (PMMA)	0.005-0.008 in. bondline	-IPA Wipe	Overlap shear (OLS) strengths were measured on 1 in. wide 1/2 in. overlap specimens. These bonds were made individually using 1 in. x 4 in. pieces of substrate except for aluminum. Two panels 0.063 in. thick, 4 in. x 7 in. of 2024T-3 clad aluminum were bonded and cut into 1 in. wide samples after 24 hour. The separation rate of the testing jaws was 0.1 in. per minute for metals, 2 in. per minute for plastics and 20 in. per minute for rubbers. The thickness of the substrates were: steel, 0.060 in.; other metals, 0.05-0.064 in.; rubbers, 0.125 in.; plastics, 0.125 in. Cohesive Failure (CF), Adhesive Failure (AF), Substrate Failure (SF)	
Overlap Shear Strength 7day Fiber-Reinforced Plastic	350 lb/in <sup>2</sup>		ASTM D1002	Overlap Shear Strength	7 day	day	23C	73F	50%RH	Fiber-Reinforced Plastic	0.005-0.008 in. bondline	-IPA Wipe	Overlap shear (OLS) strengths were measured on 1 in. wide 1/2 in. overlap specimens. These bonds were made individually using 1 in. x 4 in. pieces of substrate except for aluminum. Two panels 0.063 in. thick, 4 in. x 7 in. of 2024T-3 clad aluminum were bonded and cut into 1 in. wide samples after 24 hour. The separation rate of the testing jaws was 0.1 in. per minute for metals, 2 in. per minute for plastics and 20 in. per minute for rubbers. The thickness of the substrates were: steel, 0.060 in.; other metals, 0.05-0.064 in.; rubbers, 0.125 in.; plastics, 0.125 in. Cohesive Failure (CF), Adhesive Failure (AF), Substrate Failure (SF)	

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Typical Performance Characteristics (continued)

Property	Values	Method	Test Name	Dwell Time	Dwell Units	Temp C	Temp F	Environmental Conditions	Substrate	Substrate Notes	Surface Preparation	Notes	Failure mode
Overlap Shear Strength 7day Fiber-Reinforced Plastic	1300 lb/in <sup>2</sup>	ASTM D1002	Overlap Shear Strength	7 day	day	23C	73F	50%RH	Fiber-Reinforced Plastic	0.005 in. thick	IPA Wipe	Overlap shear (OLS) strengths were measured on 1 in. wide lap specimens. These bonds were made individually using 1 in. x 4 in. pieces of substrate except for aluminum. Two panels 0.063 in. thick, 4 in. x 7 in. of 2024T-3 clad aluminum were bonded and cut into 1 in. wide samples after 24 hour. The separation rate of the testing jaws was 0.1 in. per minute for metals, 2 in. per minute for plastics and 20 in. per minute for rubbers. The thickness of the substrates were: steel, 0.060 in.; other metals, 0.05-0.064 in.; rubbers, 0.125 in.; plastics, 0.125 in. Cohesive Failure (CF), Adhesive Failure (AF), Substrate Failure (SF)	SF
T-Peel Adhesion -55C Aluminum	5 to 10 lb/in width	ASTM D1876	T-Peel Adhesion			-55C	-67F		Aluminum	0.032 in thick		T-peel strengths were measured on 1 in. wide bonds. The testing jaw separation rate was 20 inches per minute.	
T-Peel Adhesion 23C Aluminum	50 lb/in width	ASTM D1876	T-Peel Adhesion			23C	73F		Aluminum	0.032 in thick		T-peel strengths were measured on 1 in. wide bonds. The testing jaw separation rate was 20 inches per minute.	
T-Peel Adhesion 82C Aluminum	3 to 5 lb/in width	ASTM D1876	T-Peel Adhesion			82C	180F		Aluminum	0.032 in thick		T-peel strengths were measured on 1 in. wide bonds. The testing jaw separation rate was 20 inches per minute.	

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Typical Performance Characteristics (continued)

Property	Values	Method	Test Name	Dwell Time	Dwell Units	Temp C	Temp F	Environmental Conditions	Substrate	Substrate Notes	Surface Preparation	Notes	Failure mode
T-Peel Adhesion 23C Etched Aluminum	50 lb/in width	ASTM D1876	T-Peel Adhesion			23C	73F		Etched Aluminum	0.032 in thick; 17 - 20 mil bondline		T-peel strengths were measured on 1 in. wide bonds. The testing jaw separation rate was 20 inches per minute.	
T-Peel Adhesion 23C Etched Aluminum	40 lb/in width	ASTM D1876	T-Peel Adhesion			23C	73F		Etched Aluminum	0.032 in thick; 5 - 8 mil bondline		T-peel strengths were measured on 1 in. wide bonds. The testing jaw separation rate was 20 inches per minute.	
T-Peel Adhesion 23C Cold Rolled Steel	40 lb/in width	ASTM D1876	T-Peel Adhesion			23C	73F		Cold Rolled Steel	0.032 in thick; 17 - 20 mil bondline	Dakite degrease	T-peel strengths were measured on 1 in. wide bonds. The testing jaw separation rate was 20 inches per minute.	
T-Peel Adhesion 23C Cold Rolled Steel	25 lb/in width	ASTM D1876	T-Peel Adhesion			23C	73F		Cold Rolled Steel	0.032 in thick; 17 - 20 mil bondline	MEK/Alcohol	T-peel strengths were measured on 1 in. wide bonds. The testing jaw separation rate was 20 inches per minute.	

3M™ EPX™ Pneumatic Applicator Delivery Rates

Property	Values	Test Name	Test Condition	Notes
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**3M™ EPX™ Pneumatic Applicator Delivery Rates (continued)**

Property	Values	Test Name	Test Condition	Notes
Pneumatic Applicator Delivery Rates	31.1 lb/in <sup>2</sup>	6mm Nozzle	Room Temperature	200 ml Applicator – Maximum Pressure 58 psi; Tests were run at maximum applicator pressure.
Pneumatic Applicator Delivery Rates	132 lb/in <sup>2</sup>	10mm Nozzle	Room Temperature	200 ml Applicator – Maximum Pressure 58 psi; Tests were run at maximum applicator pressure.

**Electrical and Thermal Properties**

Property	Values	Method	Temp C	Temp F	Test Condition
Volume Resistivity	$1.3 \times 10^{14} \Omega\text{-cm}$	ASTM D257	23C	73F	
Coefficient of Thermal Expansion	$85 \times 10^{-6} \text{ m/m/}^\circ\text{C}$				Below Tg
Coefficient of Thermal Expansion	$147 \times 10^{-6} \text{ m/m/}^\circ\text{C}$				Above Tg

**Handling/Application Information****Directions for Use**

3M™ Scotch-Weld™ Epoxy Adhesive DP420 is supplied in dual syringe plastic duo-pak cartridges as part of the 3M™ EPX™ Applicator System. The duo-pak cartridges are supplied in 50 ml, 200 ml and 400 ml configurations. To use the EPX cartridge system simply insert the duo-pak cartridge into the EPX applicator. Next, remove the duo-pak 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 simultaneous mixing of Part A and Part B is desired, attach the EPX mixing nozzle to the duo-pak cartridge and begin dispensing the adhesive.

When mixing Part A and Part B manually the components must be mixed in the ratio indicated in the typical uncured properties section of this data sheet. Complete mixing of the two components is required to obtain optimum properties.

Two-part mixing/proportioning/dispensing equipment is available for intermittent or production line use. These systems are ideal for line uses because of their variable shot size and flow rate characteristics and are adaptable to most applications.

Apply adhesive to clean, dry surfaces, joint parts and secure until adhesive sets (see rate of strength build up).

## Handling/Application Information (continued)

### Surface Preparation

The following surface preparations were used for substrates described in this Technical Data Sheet.

A. Aluminum Etch - Optimized FPL Etch - 3M (test method C-2803)

1. Alkaline degrease – Oakite 164 solution (9-11 oz./gallon water) at 190°F ± 10°F (88°C ± 5°C) for 10-20 minutes. Rinse immediately in large quantities of cold running water (3M test method C-2802).

2. Optimized FPL Etch Solution (1 liter):

Material Amount

Distilled Water 700 ml plus balance of liter (see below)

Sodium Dichromate 28 to 67.3 grams

Sulfuric Acid 287.9 to 310.0 grams

Aluminum Chips 1.5 grams/liter of mixed solution

To prepare 1 liter of this solution, dissolve sodium dichromate in 700 ml of distilled water. Add sulfuric acid and mix well. Add additional distilled water to fill to 1 liter. Heat mixed solution to 66 to 71°C (150 to 160°F). Dissolve 1.5 grams of 2024 bare aluminum chips per liter of mixed solution. Gentle agitation will help aluminum dissolve in about 24 hours.

To FPL etch panels, place them in the above solution at 150 to 160°F (66 to 71°C) for 12 to 15 minutes.

Note: Review and follow precautionary information provided by chemical suppliers prior to preparation of this etch solution.

3. Rinse immediately in large quantities of clear running tap water.

4. Dry – air dry approximately 15 minutes followed by force dry at 140°F (60°C) maximum for 10 minutes (minimum).

5. Both surface structure and chemistry play a significant role in determining the strength and permanence of bonded structures. It is therefore advisable to bond or prime freshly primed clean surfaces as soon as possible after surface preparation in order to avoid contamination and/or mechanical damage. Please contact your 3M sales representative for primer recommendations.

B. Oakite Degrease

Oakite 164 solutions (9-11 oz./gallon of water) at 190°F ± 10°F (88°C ± 5°C) for 2 minutes. Rinse immediately in large quantities of cold running water.

C. MEK/Abrade/MEK

Wipe surface with a methyl ethyl ketone (MEK) soaked swab, abrade and wipe with a MEK soaked swab.\* Allow solvent to evaporate before applying adhesive.

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

D. Isopropyl Alcohol Wipe Only Surface Preparation

Wipe surface with an isopropyl alcohol soaked swab.\* Allow solvent to evaporate before applying adhesive.

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

E. Isopropyl Alcohol/Abrade/Isopropyl Alcohol Surface Preparation

Wipe surface with an isopropyl alcohol soaked swab, abrade using clean fine grit abrasives, and wipe with an isopropyl alcohol soaked swab.\* Then allow solvent to evaporate before applying adhesive.

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

### Storage and Shelf Life

Store products at 60-80°F (15-27°C) for maximum shelf life.

These products have a shelf life of 24 months from date of manufacture in original containers at room temperature.

### Industry Specifications

UL 94 HB

### Trademarks

3M, Scotch-Weld and EPX are trademarks of 3M Company.

# 3M™ Scotch-Weld™ Epoxy Adhesive DP420 Off White

## References

Property	Values
3m.com Product Page	<a href="https://www.3m.com/3M/en_US/company-us/all-3m-products/-/3M-Scotch-Weld-Epoxy-Adhesive-DP420/?N=5002385+3293242436&amp;rt=rud">https://www.3m.com/3M/en_US/company-us/all-3m-products/-/3M-Scotch-Weld-Epoxy-Adhesive-DP420/?N=5002385+3293242436&amp;rt=rud</a>
Safety Data Sheet SDS	<a href="https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&amp;msdsLocale=en_US&amp;co=ptn&amp;q=DP420 Off White">https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&amp;msdsLocale=en_US&amp;co=ptn&amp;q=DP420 Off White</a>

## Typical Physical Properties

**Color:** Off-white

### Conditions

**Test Name:** Cured

## Typical Cured Characteristics

**Shore D Hardness:** 77 ± 85

### Conditions

**Temp C:** 23C

**Temp F:** 73F

### Methods

ASTM D2240

## Family Group

	DP420 Black	DP420NS Black	DP420 Off White
Color Test Name: Cured	Black	Black	Off-white
Open Time (min)	20	20	20

## 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 Material 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.

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