



Technical Data Sheet

3M™ Scotch-Weld™ Epoxy Adhesive DP100 Clear

Product Description

3M™ Scotch-Weld™ Epoxy Adhesive DP100 is a two-part adhesive offering fast cure and machinability. Available in larger containers as 3M™ Scotch-Weld™ Epoxy Adhesives 100 B/A or 100 NS B/A.

Product Features

- Easy mixing
- High Flow
- Fast Cure
- Meets UL 94 HB

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	Additional Information
Color	Clear	View ^

Notes: Colors may vary from nearly white to yellow/amber. Adhesive performance is not affected by color variation.

Base Viscosity	8,000-15,000 cP	View ^
Test Method: 3M C1d		
Temp C: 27C Temp F: 80F		
Notes: Procedure involves Brookfield RVF, #6 spindle, 20 rpm. Measurement taken after 1 minute.		

Accelerator Viscosity	9,000-16,000 cP	View ^
Test Method: 3M C1d		
Temp C: 27C Temp F: 80F		
Notes: Procedure involves Brookfield RVF, #6 spindle, 20 rpm. Measurement taken after 1 minute.		

Base Resin	Epoxy
Base Net Weight	9.5 to 9.9 lb/gal

Accelerator Net Weight	9.2 to 9.6 lb/gal
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Mix Ratio by Volume (B:A)	1:1
Mix Ratio by Weight (B:A)	1:0.98

Typical Mixed Physical Properties

Property	Values	Additional Information
Open Time	5 min	View ^
Notes: POR=Pop Off Rubber		
Worklife, 10g mixed	5 min	View ^
Test Method: 3M C548 Temp C: 23C Temp F: 73F Notes: Procedure involves periodically measuring a 10 gram mixed mass for spreading and wetting properties. This time approximates the usable worklife in an EPX applicator nozzle.		
Set Time (min)	15 to 20 min	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.		
Time to Full Cure	24 to 48 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.		
Time to Full Cure	24 to 48 hr	View ^
Temp C: 23C Temp F: 73F		
Rate of Strength Buildup 20min	400 lb/in²	View ^
Test Method: ASTM D1002 Test Name: Overlap Shear Strength Dwell/Cure Time: 20.0 Dwell Time Units: min Temp C: 23C Temp F: 72F Substrate: Aluminum Notes: 1in wide 1/2in overlap shear specimens. 2 panels 0.063 in. thick, 4 in. x 7 in. of 2024T-3 clad aluminum bonded and cut 1in wide samples after 24hr. 7mil bondline. Jaw Separation 0.1in/min		
Rate of Strength Buildup	0 lb/in²	


View 

Test Method: ASTM D1002




Test Name: Overlap Shear Strength
Dwell/Cure Time: 10.0
Dwell Time Units: min
Temp C: 23C
Temp F: 72F
Substrate: Aluminum

Notes: 1in wide 1/2in overlap shear specimens. 2 panels 0.063 in. thick, 4 in. x 7 in. of 2024T-3 clad aluminum bonded and cut 1in wide samples after 24hr. 7mil bondline. Jaw Separation 0.1in/min

Typical Physical Properties


Property	Values	Additional Information
Color	Clear	View 
Test Name: Cured		

Typical Cured Characteristics

Property	Values	Additional Information
Shore D Hardness	82	View 
Test Method: ASTM D2240		
Temp C: 23C Temp F: 73F		
Weight Loss by Thermal Gravimetric Analysis (TGA)	585°F(307°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.		
Compression Strength	8400 lb/in²	View 

Test Method: ASTM D695

Typical Performance Characteristics

Property	Values	Additional Information
Overlap Shear Strength 7day Aluminum	950 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: 73F Environmental Condition: 50%RH Substrate: Aluminum Surface Preparation: MEK/Abrade/MEK		

Notes: 1in wide 1/2in overlap specimens. 2 panels of 0.05-0.064in x 4in x 7in 2024T-3 clad aluminum bonded and cut to 1in wide samples after 24hr. Jaw separation

0.1 in/min, 0.005-0.008in bondline. Cohesive (CF), Adhesive (AF), and Substrate (SF) Failure

Overlap Shear Strength 7day Cold Rolled Steel	1000 lb/in²	View ^
<div>Test Method: ASTM D1002</div> <div>Test Name: Overlap Shear Strength Dwell/Cure Time: 7.0 Dwell Time Units: day Temp C: 23C Temp F: 73F Environmental Condition: 50%RH Substrate: Cold Rolled Steel Surface Preparation: MEK/Abrade/MEK</div> <div>Notes: Overlap shear (OLS) strengths were measured on 1in wide 1/2in overlap specimens on 1in x 4in x .060in substrates. Jaw separation 0.1 in/min. 0.005-0.008in bondline. Cohesive (CF), Adhesive(AF), and Substrate(SF) Failure</div>		
Overlap Shear Strength 7day Copper	950 lb/in²	View ^
<div>Test Method: ASTM D1002</div> <div>Test Name: Overlap Shear Strength Dwell/Cure Time: 7.0 Dwell Time Units: day Temp C: 23C Temp F: 73F Environmental Condition: 50%RH Substrate: Copper Surface Preparation: MEK/Abrade/MEK</div> <div>Notes: Overlap shear (OLS) strengths were measured on 1in wide 1/2in overlap specimens on 1in x 4in x 0.05-0.060in substrates. Jaw separation 0.1 in/min. 0.005-0.008in bondline. Cohesive (CF), Adhesive(AF), and Substrate(SF) Failure</div>		
Overlap Shear Strength 7day Brass	700 lb/in²	View ^
<div>Test Method: ASTM D1002</div> <div>Test Name: Overlap Shear Strength Dwell/Cure Time: 7.0 Dwell Time Units: day Temp C: 23C Temp F: 73F Environmental Condition: 50%RH Substrate: Brass Surface Preparation: MEK/Abrade/MEK</div> <div>Notes: Overlap shear (OLS) strengths were measured on 1in wide 1/2in overlap specimens on 1in x 4in x 0.05-0.060in substrates. Jaw separation 0.1 in/min. 0.005-0.008in bondline. Cohesive (CF), Adhesive(AF), and Substrate(SF) Failure</div>		
Overlap Shear Strength 7day Stainless Steel	750 lb/in²	View ^
<div>Test Method: ASTM D1002</div> <div>Test Name: Overlap Shear Strength Dwell/Cure Time: 7.0 Dwell Time Units: day Temp C: 23C Temp F: 73F Environmental Condition: 50%RH Substrate: Stainless Steel Surface Preparation: MEK/Abrade/MEK</div> <div>Notes: Overlap shear (OLS) strengths were measured on 1 in. wide 1/2 in. overlap specimens. These bonds were made individually using 1" x 4" x 0.060" substrate Jaw Separation 0.1in/min Cohesive Failure (CF), Adhesive Failure (AF), Substrate Failure (SF)</div>		
Overlap Shear Strength 7day ABS	490 lb/in²	View ^
<div>Test Method: ASTM D1002</div> <div>Test Name: Overlap Shear Strength Dwell/Cure Time: 7.0 Dwell Time Units: day</div>		

Temp C: 23C
Temp F: 73F
Environmental Condition: 50%RH
Substrate: ABS
Surface Preparation: IPA Wipe/Abrade/IPA Wipe

Notes: Overlap shear (OLS) strengths were measured on 1 in. wide 1/2 in. overlap specimens. Bonds made with 1 in x 4 in x 0.125in pieces of substrate with a 0.005-0.008in bondline. Jaw Separation 2in/min Cohesive (CF), Adhesive (AF), Substrate (SF) Failure

Overlap Shear Strength 7day Polyvinyl chloride (PVC)	330 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: 73F Environmental Condition: 50%RH Substrate: Polyvinyl chloride (PVC) Surface Preparation: IPA Wipe/Abrade/IPA Wipe Notes: Overlap shear (OLS) strengths were measured on 1 in. wide 1/2 in. overlap specimens. 1" x 4" x 0.125" substrate Jaw separation 2 in/min; 0.005-0.008in bondline. Cohesive Failure (CF), Adhesive Failure (AF), Substrate Failure (SF)			
Overlap Shear Strength 7day Polycarbonate (PC)	250 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: 73F Environmental Condition: 50%RH Substrate: Polycarbonate (PC) Surface Preparation: IPA Wipe/Abrade/IPA Wipe Notes: Overlap shear (OLS) strengths were measured on 1 in. wide 1/2 in. overlap specimens. 1" x 4" x 0.125" substrate Jaw separation 2 in/min; 0.005-0.008in bondline. Cohesive Failure (CF), Adhesive Failure (AF), Substrate Failure (SF)			
Overlap Shear Strength 7day Acrylic (PMMA)	100 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: 73F Environmental Condition: 50%RH Substrate: Acrylic (PMMA) Notes: Overlap shear (OLS) strengths were measured on 1 in. wide 1/2 in. overlap specimens. 1" x 4" x 0.125" substrate Jaw separation 2 in/min; 0.005-0.008in bondline. Cohesive Failure (CF), Adhesive Failure (AF), Substrate Failure (SF)			
Overlap Shear Strength 7day Fiber-Reinforced Plastic	950 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: 73F Environmental Condition: 50%RH Substrate: Fiber-Reinforced Plastic Surface Preparation: IPA Wipe/Abrade/IPA Wipe Notes: Overlap shear (OLS) strengths were measured on 1 in. wide 1/2 in. overlap specimens. 1" x 4" x 0.125" substrate Jaw separation 2 in/min; 0.005-0.008in bondline. Cohesive Failure (CF), Adhesive Failure (AF), Substrate Failure (SF)			
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	B	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	A	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	B	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.

Overlap Shear Strength 7day Galvanized Steel	900 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: 73F			
Environmental Condition: 50%RH			
Substrate: Galvanized Steel			
Surface Preparation: MEK/Abrade/MEK			
Notes: 0.5in overlap, 0.1 in/min for metals and 2 in/min for plastics, substrates lightly abraded and solvent wiped, substrates used were 1/16in thick, 0.010in bondline			
Substrate (SF), Adhesive (AF), Cohesive (CF), and Mixed (MF) Failure modes			

T-Peel Adhesion 7day 23C Aluminum	2 lb/in width	View	^
Test Method: ASTM D1876			
Test Name: T-Peel Adhesion			
Dwell/Cure Time: 7.0			
Dwell Time Units: day			
Temp C: 23C			
Temp F: 73F			
Substrate: Aluminum			
Notes: 0.032in thick, 5 - 8 mil bondline T-peel strengths with 1 in wide bonds. Jaw separation rate @ 20 in/min.			


T-Peel Adhesion 7day 23C Aluminum	2 lb/in width	View	^
Test Method: ASTM D1876			
Test Name: T-Peel Adhesion			
Dwell/Cure Time: 7.0			
Dwell Time Units: day			
Temp C: 23C			
Temp F: 73F			
Substrate: Aluminum			
Notes: 0.032in thick, 5 - 8 mil bondline T-peel strengths with 1 in wide bonds. Jaw separation rate @ 20 in/min.			

T-Peel Adhesion 7day 23C Cold Rolled Steel	2 lb/in width	View	^
Test Method: ASTM D1876			
Test Name: T-Peel Adhesion			
Dwell/Cure Time: 7.0			
Dwell Time Units: day			
Temp C: 23C			
Temp F: 73F			
Substrate: Cold Rolled Steel			


Surface Preparation: MEK/Abrade/MEK

Notes: 0.032in thick, 5 - 8 mil bondline T-peel strengths with 1 in wide bonds. Jaw separation rate @ 20 in/min.

Electrical and Thermal Properties

Property	Values	Additional Information
Glass Transition Temperature (Tg)	33 °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)	91 °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.		

Volume Resistivity	3.5 x 10^12 Ω-cm	View 
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Test Method: ASTM D257

Temp C: 23C
Temp F: 73F

Coefficient of Thermal Expansion	60 x 10^-6 m/m/°C	View 
Notes: Coefficient of thermal expansion determined using DuPont (TMA) using a heating rate of 10°C (50°F) per minute. Second heat values given.		

Coefficient of Thermal Expansion	209 x 10^-6 m/m/°C	View 
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Notes: Coefficient of thermal expansion determined using DuPont (TMA) using a heating rate of 10°C (50°F) per minute. Second heat values given.

Storage and Shelf Life

Store products at 60-80°F (16-27°C) for maximum storage life. Rotate on “first in-first out” basis.
When stored as recommended in original unopened container, this product has a shelf life of 24 months from date of manufacture.

Industry Specifications

UL 94 HB

Bottom Matter

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Trademarks

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Handling/Application Information

Application Equipment

For small or intermittent applications the 3M™ Scotch-Weld™ EPX™ applicator is a convenient method of application.

For larger applications these adhesives may be applied by use of flow equipment. Two-part meter/mixing/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 optimum 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. For specific surface preparations on common substrates, see the following section on Surface Preparation.
2. Use gloves to minimize skin contact with adhesive.
3. These products consist of two parts.

Mixing and Applying

For Duo-Pak Cartridges - 48.5 ml

3M™ Scotch-Weld™ DP100 and DP100 NS Adhesives are supplied in a dual syringe plastic Duo-Pak cartridge as part of the 3M™ Scotch-Weld™ 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 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 mixing of Part A and Part B is desired, attach the EPX 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.

For Duo-Pak Cartridges - 200/400 ml

Directions for Use: While holding cartridge in an upright position, remove insert from Duo-Pak cartridge by unscrewing plastic nut. Detach metal removal disc from insert to free plastic nut for nozzle attachment. Clear orifices if necessary. Attach mixing nozzle and secure with plastic nut. Place cartridge into EPX Applicator. Dispense a small quantity of adhesive to assure both components are dispensing equally. Apply adhesive to clean surfaces, join parts, secure until set up (20 minutes @ 75°F [24°C]). Leave nozzle attached to store. Replace nozzle after storage.

For Bulk Containers

Mix thoroughly by weight or volume in the proportions specified in the Typical Uncured Properties section. 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 make within 5 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 fully cure in 24-48 hours @ 75°F (24°C).
7. Keep parts from moving during cure. Contact pressure is 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 and follow the manufacturer's precautions and directions for use.

Adhesive Coverage: A 0.005 in. thick bondline will typically yield a coverage of 320 sqft/gallon.

Surface Preparation

For optimum 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 the user.

The following cleaning methods are suggested for common surfaces:

Steel:

1. Wipe free of dust with oil-free solvent such as acetone or isopropyl alcohol.*
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. Acid Etch: Place panels in the following solution for 10 minutes at 150°F ± 5°F (66°C ± 2°C).

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

2. Rinse: Rinse panels in clear running tap water.
3. Dry: Air dry 15 minutes and force dry 10 minutes at 150°F ± 10°F (66°C ± 5°C).
4. If primer is to be used, it should be applied within 4 hours after surface preparation.
5. Option 2: Degrease with an industrial solvent such as MEK*; abrade with ScotchBrite™ 7447 abrasive (or sandpaper of approximately 180 grit) and wipe again with solvent*.

Plastics/Rubber:

1. Wipe with isopropyl alcohol.*
2. Abrade using fine grit abrasives.
3. Wipe with isopropyl alcohol.*

*Note: When using solvents, extinguish all ignition sources and follow the manufacturer’s precautions and directions for use.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/p/d/b40066435/
Safety Data Sheet SDS	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=DP100 Clear

Family Group

Link Tags:

- DP100 Clear

• DP100NS Translucent

Products	Open Time	Color	Set Time (min)	Time to Full Cure	Shore D Hardness
DP100 Clear	5 min	Clear	15 to 20 min	24 to 48 hr	82
DP100NS Translucent	5 min	Translucent	15 to 20 min	24 to 48 hr	82

ISO Statement

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

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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