

January, 2017

3M™ Scotch-Weld™ Structural Plastic Adhesive DP8005 Off White

Product Description

3M™ Scotch-Weld™ Structural Plastic Adhesive DP8005 is a two-part acrylic- based adhesive (10:1 ratio by volume) that can bond many low surface energy plastics, including many grades of polypropylene, polyethylene, and TPO's without special surface preparation.

3M™ Scotch-Weld Adhesive DP8005 can replace screws, rivets, plastic welding, and two-step processes which include chemical etchants, priming or surface treatments in many applications.

Product Features

- Ability to Bond Dissimilar Substrates
- Ability to Structurally Bond Polyolefins
- Room Temperature Cure
- Excellent Water and Humidity Resistance
- Very Good Chemical Resistance
- One Step Process - No Pre-Treatment of the Substrates Needed
- Solvent-free Adhesive System
- Convenient Hand-Held Applicator System
- Contains 0.008" glass beads for bondline thickness control
- Available in Bulk



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	Test Condition	Notes
Base Color	Amber		
Accelerator Color	White		
Base Viscosity	17000 to 30000 cP	Room Temperature	Viscosity obtained by Brookfield, DV-II, #7 Spindle, 20 rpm
Accelerator Viscosity	35000 to 55000 cP	Room Temperature	Viscosity obtained by Brookfield, DV-II, #7 Spindle, 20 rpm.
Base Resin	Methacrylate		
Accelerator Resin	Amine		
Base Net Weight	8 to 8.4 lb/gal		
Accelerator Net Weight	8.7 to 9.15 lb/gal		
Mix Ratio by Volume (B:A)	10:1		
Mix Ratio by Weight (B:A)	9.16:1		

Typical Mixed Physical Properties

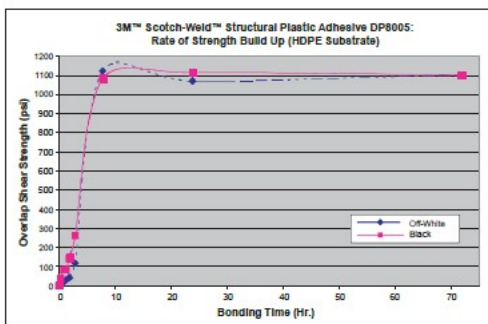
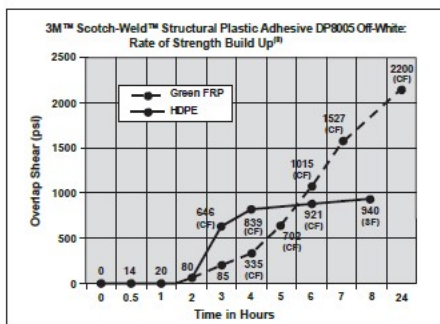
Property	Values	Test Condition	Notes
Worklife	2.5 to 3 min	Room Temperature	
Time to Handling Strength	2 to 3 h	Room Temperature	Minimum time required to achieve 50 psi of overlap shear strength. Cure times are approximate and depend on adhesive temperature.
Time to Full Cure	8 to 24 h	Room Temperature	Time to develop 80% of maximum overlap shear values.

Typical Mixed Physical Properties (continued)

Rate of Strength Buildup (OLS):

Typical Rate of Strength Build-Up⁽⁸⁾

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



(8) Rate of strength testing done using overlap shear test described in footnote 4.

Conditions

Dwell/Cure Time: 48 hr @ Room Temperature

Test Condition : Room Temperature

Additional Information

Notes: Sample dimensions were 1" x 4" x 1/8" (unless other thicknesses indicated) with an overlap area of 1" x 1/2". Plastics and glass substrates were cleansed with isopropyl alcohol (IPA) wipes; metal substrates were abraded with 150-grit sandpaper and cleansed with methyl ethyl ketone (MEK) wipes. Data were collected using a Sintech 5GL Mechanical Tester with the 2000-lb or 5000-lb load cells. Test rate was 2"/min. for plastic bonds, and 0.1"/min. for metal and glass bonds.

Typical Cured Characteristics

Property	Values	Test Condition	Method	Notes
Color	Yellow	Cured		
Shore D Hardness	55	Room Temperature	ASTM D2240	
Strain at Peak Load	5.3 %			Mechanical properties obtained using a Sintech 5GL Mechanical Tester. Approximate dimensions of the test specimen was 1.5" x 0.5" x 0.3". Elongation was determined by crosshead displacement. The crosshead velocity was 0.5"/min.
Peak Stress	1889 lb/in ²			Mechanical properties obtained using a Sintech 5GL Mechanical Tester. Approximate dimensions of the test specimen was 1.5" x 0.5" x 0.3". Elongation was determined by crosshead displacement. The crosshead velocity was 0.5"/min.

Table continued on next page

Typical Cured Characteristics (continued)

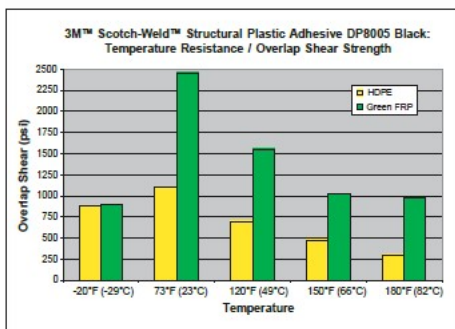
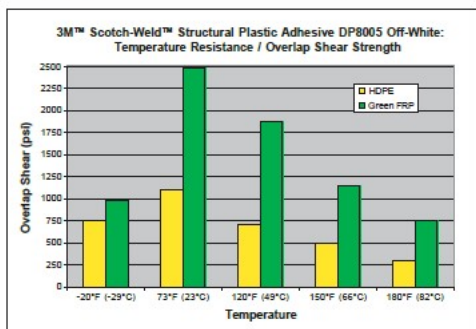
Property	Values	Test Condition	Method	Notes
Modulus at 1% Strain	85669 lb/in ²			Mechanical properties obtained using a Sintech 5GL Mechanical Tester. Approximate dimensions of the test specimen was 1.5" x 0.5" x 0.3". Elongation was determined by crosshead displacement. The crosshead velocity was 0.5"/min.

Typical Performance Characteristics

Temperature Resistance:

Temperature Resistance

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



Conditions

Dwell/Cure Time: 48 hr @ Room Temperature

Test Condition : Room Temperature

Additional Information

Notes: Sample dimensions were 1" x 4" x 1/8" (unless other thicknesses indicated) with an overlap area of 1" x 1/2". Plastics and glass substrates were cleansed with isopropyl alcohol (IPA) wipes; metal substrates were abraded with 150-grit sandpaper and cleansed with methyl ethyl ketone (MEK) wipes. Data were collected using a Sintech 5GL Mechanical Tester with the 2000-lb or 5000-lb load cells. Test rate was 2"/min. for plastic bonds, and 0.1"/min. for metal and glass bonds.

T-Peel Adhesion: 17 lb/in width

Conditions

Substrate: High Density Polyethylene (HDPE)

Failure mode: SF

Methods

ASTM D1876

Additional Information

Notes: Peel tests on 0.02" thick HDPE, 0.017" bondline thickness, 8" x 1" in T-peel mode at a rate of 2.0"/min.

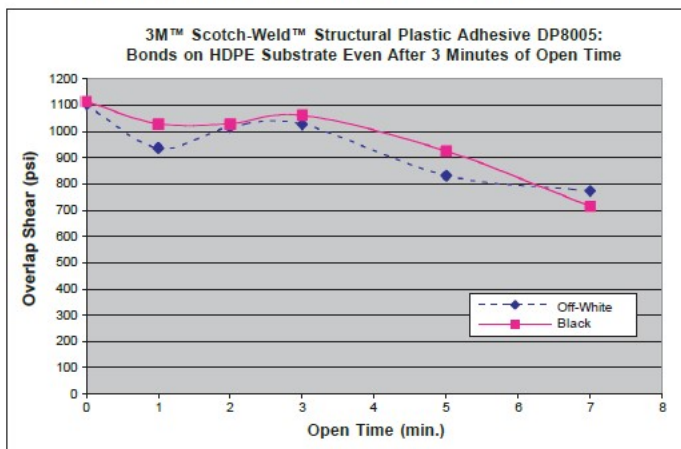
SF = Substrate Failure/Break/Yield, C sh = Cohesive but shoccky

Typical Performance Characteristics (continued)

Time and Substrates:

Times and Substrates ⁽⁹⁾

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



(9) Open Time Overlap Shear Test done using test method described in footnote 4.

Conditions

Dwell/Cure Time: 48 hr @ Room Temperature

Test Condition : Room Temperature

Additional Information

Notes: Sample dimensions were 1" x 4" x 1/8" (unless other thicknesses indicated) with an overlap area of 1" x 1/2". Plastics and glass substrates were cleansed with isopropyl alcohol (IPA) wipes; metal substrates were abraded with 150-grit sandpaper and cleansed with methyl ethyl ketone (MEK) wipes. Data were collected using a Sintech 5GL Mechanical Tester with the 2000-lb or 5000-lb load cells. Test rate was 2"/min. for plastic bonds, and 0.1"/min. for metal and glass bonds.

Suggested Substrates:

Suggested Substrates

Note: The following suggestions are based on laboratory tests on typical grades of the listed substrates. Because of the many combinations of process aids and additives that are used with plastic substrates, the user is responsible for determining whether 3M™ Scotch-Weld™ Structural Plastic Adhesive DP8005 is appropriate for a given application.

Potential Primary Surfaces	Polypropylene (PP) Polyethylene (PE, HDPE, LDPE)	
Potential Secondary Surfaces	Fiber Reinforced Plastic (FRP) Polycarbonate (PC) Wood Aluminum Glass Thermoplastic Elastomers (TPE)	PVC ABS Acrylic (PMMA) Polystyrene Concrete Metals
Not Recommended Surfaces Inconsistent results have been exhibited with substrates that contain oils and anti-stats.	PTFE Silicone Surfaces Surfaces Containing Mold-Release Agents Polyimide Nylons	

Overlap Shear Strength		Substrate	Failure mode	Substrate Notes	Surface Preparation
1100 lb/in ²	1075 lb/in ²	High Density Polyethylene (HDPE)	SF		
1100 lb/in ²		Polypropylene (PP)	SF		
750 lb/in ²		UHMWPE	SF		

Table continued on next page

Typical Performance Characteristics (continued)

Overlap Shear Strength		Substrate	Failure mode	Substrate Notes	Surface Preparation
400 lb/in ²		Low Density Polyethylene (LDPE)	SF		
1525 lb/in ²		ABS	SF		
850 lb/in ²		Polycarbonate (PC)	SF		
950 lb/in ²		Acrylic (PMMA)	SF		
SF lb/in ²		Polyvinyl chloride (PVC)	550		
550 lb/in ²		High Impact Polystyrene	SF		
2475 lb/in ²		FRP (Epoxy)	CF		
250 lb/in ²		PTFE	AF		
775 lb/in ²		Polystyrene Foam	SF		
650 lb/in ²		Glass	SF	3/16in thick	
1500 lb/in ²		Gelcoat FRP	SF	3/16in thick	
2275 lb/in ²		Copper	CF	1/16in thick	
2275 lb/in ²		Aluminum	CF	1/16in thick	
2500 lb/in ²		Cold Rolled Steel	AF	1/32in thick	
2300 lb/in ²		304 Stainless Steel	CF	1/32in thick	
975 lb/in ²		HDPE to HDG	SF		
950 lb/in ²		HDPE to Galvanealed	SF		
950 lb/in ²		HDPE to Cold Rolled Steel	SF		
2150 lb/in ²		HDG	CF		Oily

Property: Overlap Shear Strength

Method: ASTM D1002

Dwell/Cure Time: 48 hr @ Room Temperature

Test Condition : Room Temperature

notes: Overlap Shear Test Method: Sample dimensions were 1" x 4" x 1/8" (unless other thicknesses indicated) with an overlap area of 1" x 1/2". Plastics and glass substrates were cleansed with isopropyl alcohol (IPA) wipes; metal substrates were abraded with 150-grit sandpaper and cleansed with methyl ethyl ketone (MEK) wipes. Data were collected using a Sintech 5GL Mechanical Tester with the 2000-lb or 5000-lb load cells. Test rate was 2"/min. for plastic bonds, and 0.1"/min. for metal and glass bonds. SF = Substrate Failure/Break/Yield CF = Cohesive Failure AF = Adhesive Failure MM = Mixed (Mode of AF and CF)

Typical Performance Characteristics (continued)

Overlap Shear Strength (at Temperature)	Test Condition	Substrate	Failure mode	Notes
750 lb/in ²	@ -20°F(-29°C)	High Density Polyethylene (HDPE)	CF	Temperature resistance tests were conducted at specified temperature in accordance with Overlap Shear Test Method: Sample dimensions were 1" x 4" x 1/8" (unless other thicknesses indicated) with an overlap area of 1" x 1/2". Plastics and glass substrates were cleansed with isopropyl alcohol (IPA) wipes; metal substrates were abraded with 150-grit sandpaper and cleansed with methyl ethyl ketone (MEK) wipes. Data were collected using a Sintech 5GL Mechanical Tester with the 2000-lb or 5000-lb load cells. Test rate was 2"/min. for plastic bonds, and 0.1"/min. for metal and glass bonds. SF = Substrate Failure/Break CF = Cohesive Failure AF = Adhesive Failure MM = Mixed (Mode of AF and CF)
975 lb/in ²	@ -20°F(-29°C)	FRP (Epoxy)	AF	Temperature resistance tests were conducted at specified temperature in accordance with Overlap Shear Test Method: Sample dimensions were 1" x 4" x 1/8" (unless other thicknesses indicated) with an overlap area of 1" x 1/2". Plastics and glass substrates were cleansed with isopropyl alcohol (IPA) wipes; metal substrates were abraded with 150-grit sandpaper and cleansed with methyl ethyl ketone (MEK) wipes. Data were collected using a Sintech 5GL Mechanical Tester with the 2000-lb or 5000-lb load cells. Test rate was 2"/min. for plastic bonds, and 0.1"/min. for metal and glass bonds. SF = Substrate Failure/Break CF = Cohesive Failure AF = Adhesive Failure MM = Mixed (Mode of AF and CF)
1100 lb/in ²	Room Temperature	High Density Polyethylene (HDPE)	SF	Temperature resistance tests were conducted at specified temperature in accordance with Overlap Shear Test Method: Sample dimensions were 1" x 4" x 1/8" (unless other thicknesses indicated) with an overlap area of 1" x 1/2". Plastics and glass substrates were cleansed with isopropyl alcohol (IPA) wipes; metal substrates were abraded with 150-grit sandpaper and cleansed with methyl ethyl ketone (MEK) wipes. Data were collected using a Sintech 5GL Mechanical Tester with the 2000-lb or 5000-lb load cells. Test rate was 2"/min. for plastic bonds, and 0.1"/min. for metal and glass bonds. SF = Substrate Failure/Break CF = Cohesive Failure AF = Adhesive Failure MM = Mixed (Mode of AF and CF)

Table continued on next page

Typical Performance Characteristics (continued)

Overlap Shear Strength (at Temperature)	Test Condition	Substrate	Failure mode	Notes
2475 lb/in ²	Room Temperature	FRP (Epoxy)	SF	Temperature resistance tests were conducted at specified temperature in accordance with Overlap Shear Test Method: Sample dimensions were 1" x 4" x 1/8" (unless other thicknesses indicated) with an overlap area of 1" x 1/2". Plastics and glass substrates were cleansed with isopropyl alcohol (IPA) wipes; metal substrates were abraded with 150-grit sandpaper and cleansed with methyl ethyl ketone (MEK) wipes. Data were collected using a Sintech 5GL Mechanical Tester with the 2000-lb or 5000-lb load cells. Test rate was 2"/min. for plastic bonds, and 0.1"/min. for metal and glass bonds. SF = Substrate Failure/Break CF = Cohesive Failure AF = Adhesive Failure MM = Mixed (Mode of AF and CF)
700 lb/in ²	@ 120°F(49°C)	High Density Polyethylene (HDPE)	CF	Temperature resistance tests were conducted at specified temperature in accordance with Overlap Shear Test Method: Sample dimensions were 1" x 4" x 1/8" (unless other thicknesses indicated) with an overlap area of 1" x 1/2". Plastics and glass substrates were cleansed with isopropyl alcohol (IPA) wipes; metal substrates were abraded with 150-grit sandpaper and cleansed with methyl ethyl ketone (MEK) wipes. Data were collected using a Sintech 5GL Mechanical Tester with the 2000-lb or 5000-lb load cells. Test rate was 2"/min. for plastic bonds, and 0.1"/min. for metal and glass bonds. SF = Substrate Failure/Break CF = Cohesive Failure AF = Adhesive Failure MM = Mixed (Mode of AF and CF)
1875 lb/in ²	@ 120°F(49°C)	FRP (Epoxy)	MM	Temperature resistance tests were conducted at specified temperature in accordance with Overlap Shear Test Method: Sample dimensions were 1" x 4" x 1/8" (unless other thicknesses indicated) with an overlap area of 1" x 1/2". Plastics and glass substrates were cleansed with isopropyl alcohol (IPA) wipes; metal substrates were abraded with 150-grit sandpaper and cleansed with methyl ethyl ketone (MEK) wipes. Data were collected using a Sintech 5GL Mechanical Tester with the 2000-lb or 5000-lb load cells. Test rate was 2"/min. for plastic bonds, and 0.1"/min. for metal and glass bonds. SF = Substrate Failure/Break CF = Cohesive Failure AF = Adhesive Failure MM = Mixed (Mode of AF and CF)

Table continued on next page

Typical Performance Characteristics (continued)

Overlap Shear Strength (at Temperature)	Test Condition	Substrate	Failure mode	Notes
500 lb/in ²	@ 150°F(66°C)	High Density Polyethylene (HDPE)	CF	Temperature resistance tests were conducted at specified temperature in accordance with Overlap Shear Test Method: Sample dimensions were 1" x 4" x 1/8" (unless other thicknesses indicated) with an overlap area of 1" x 1/2". Plastics and glass substrates were cleansed with isopropyl alcohol (IPA) wipes; metal substrates were abraded with 150-grit sandpaper and cleansed with methyl ethyl ketone (MEK) wipes. Data were collected using a Sintech 5GL Mechanical Tester with the 2000-lb or 5000-lb load cells. Test rate was 2"/min. for plastic bonds, and 0.1"/min. for metal and glass bonds. SF = Substrate Failure/Break CF = Cohesive Failure AF = Adhesive Failure MM = Mixed (Mode of AF and CF)
1150 lb/in ²	@ 150°F(66°C)	FRP (Epoxy)	MM	Temperature resistance tests were conducted at specified temperature in accordance with Overlap Shear Test Method: Sample dimensions were 1" x 4" x 1/8" (unless other thicknesses indicated) with an overlap area of 1" x 1/2". Plastics and glass substrates were cleansed with isopropyl alcohol (IPA) wipes; metal substrates were abraded with 150-grit sandpaper and cleansed with methyl ethyl ketone (MEK) wipes. Data were collected using a Sintech 5GL Mechanical Tester with the 2000-lb or 5000-lb load cells. Test rate was 2"/min. for plastic bonds, and 0.1"/min. for metal and glass bonds. SF = Substrate Failure/Break CF = Cohesive Failure AF = Adhesive Failure MM = Mixed (Mode of AF and CF)
300 lb/in ²	@ 180°F(82°C)	High Density Polyethylene (HDPE)	CF	Temperature resistance tests were conducted at specified temperature in accordance with Overlap Shear Test Method: Sample dimensions were 1" x 4" x 1/8" (unless other thicknesses indicated) with an overlap area of 1" x 1/2". Plastics and glass substrates were cleansed with isopropyl alcohol (IPA) wipes; metal substrates were abraded with 150-grit sandpaper and cleansed with methyl ethyl ketone (MEK) wipes. Data were collected using a Sintech 5GL Mechanical Tester with the 2000-lb or 5000-lb load cells. Test rate was 2"/min. for plastic bonds, and 0.1"/min. for metal and glass bonds. SF = Substrate Failure/Break CF = Cohesive Failure AF = Adhesive Failure MM = Mixed (Mode of AF and CF)

Table continued on next page

Typical Performance Characteristics (continued)

Overlap Shear Strength (at Temperature)	Test Condition	Substrate	Failure mode	Notes
750 lb/in ²	@ 180°F(82°C)	FRP (Epoxy)	MM	Temperature resistance tests were conducted at specified temperature in accordance with Overlap Shear Test Method: Sample dimensions were 1" x 4" x 1/8" (unless other thicknesses indicated) with an overlap area of 1" x 1/2". Plastics and glass substrates were cleansed with isopropyl alcohol (IPA) wipes; metal substrates were abraded with 150-grit sandpaper and cleansed with methyl ethyl ketone (MEK) wipes. Data were collected using a Sintech 5GL Mechanical Tester with the 2000-lb or 5000-lb load cells. Test rate was 2"/min. for plastic bonds, and 0.1"/min. for metal and glass bonds.

Property: Overlap Shear Strength (at Temperature)
 Method: ASTM D1002
 Dwell/Cure Time: 48 hr @ Room Temperature

Electrical and Thermal Properties

Property	Values	Notes	Test Condition
Tg onset	33 °C	Tg and CTE determined by TMA -40°F to 249°F (-40°C to 120°C) at 10°F (5°C)/min. (after 2 heat cycles).	
Coefficient of Thermal Expansion	125 ppm/°C	Tg and CTE determined by TMA -40°F to 249°F (-40°C to 120°C) at 10°F (5°C)/min. (after 2 heat cycles).	Below Tg
Coefficient of Thermal Expansion	170 ppm/°C	Tg and CTE determined by TMA -40°F to 249°F (-40°C to 120°C) at 10°F (5°C)/min. (after 2 heat cycles).	Above Tg

Typical Environmental Performance

Overlap Shear Strength (14 days immersion)	Environmental Condition	Failure mode
1100 lb/in ²	Control - no chemical exposure	SF
950 lb/in ²	160°F(71°C)/100% RH	MM
975 lb/in ²	160°F(71°C) Water Soak	CF
1100 lb/in ²	Room Temperature Salt Water Soak (5% by wt.)	SF
925 lb/in ²	160°F(71°C)/100% RH Salt Water Soak (5% by wt.)	CF
1075 lb/in ²	NaOH (10% by wt.)	SF
1100 lb/in ²	HCl (16% by vol.)	SF

Table continued on next page

Typical Environmental Performance (continued)

Overlap Shear Strength (14 days immersion)	Environmental Condition	Failure mode
950 lb/in ²	Isopropyl Alcohol (IPA)	SF
1000 lb/in ²	Antifreeze Coolant	SF
325 lb/in ²	Gasoline	CF
1050 lb/in ²	Diesel Fuel	SF
25 lb/in ²	Toluene	CF
100 lb/in ²	Acetone	CF

Property: Overlap Shear Strength (14 days immersion)

Method: ASTM D1002

Dwell/Cure Time: 48 hr @ Room Temperature

Test Condition : Room Temperature

notes: Environmental tests were conducted by immersing bonded coupons of HDPE and subsequent testing in accordance with Overlap Shear Test Method: Sample dimensions were 1" x 4" x 1/8" (unless other thicknesses indicated) with an overlap area of 1" x 1/2". Plastics and glass substrates were cleansed with isopropyl alcohol (IPA) wipes; metal substrates were abraded with 150-grit sandpaper and cleansed with methyl ethyl ketone (MEK) wipes. Data were collected using a Sintech 5GL Mechanical Tester with the 2000-lb or 5000-lb load cells. Test rate was 2"/min. for plastic bonds, and 0.1"/min. for metal and glass bonds. SF = Substrate Failure/Break/Yield AF = Adhesive Failure CF = Cohesive Failure MM = Mixed (Mode of AF and CF)

Handling/Application Information

Directions for Use

Important: Use only the specified 3M™ EPX™ Plus II Applicator system or appropriate meter mix equipment to ensure the proper 10:1 mix ratio and mix. Hand mixing is not recommended and may result in unpredictable results.

1) Apply adhesive to clean, dry substrates, which are free of loose paint, oxide films, oils, dust, mold release agents and all other surface contaminants. See the Surface Preparation section for specific substrate preparation methods.

45 ml Cartridge:

Place duo-pak cartridge in EPX applicator. Twist to remove cap. Dispense and discard a small amount of adhesive to assure even ratio and free flow. Clear orifice if necessary. Use only orange 10:1 mixing nozzle by: (a) aligning nozzle onto cartridge tip, and (b) twist the gray nut into place. Dispense and discard a small amount of adhesive through nozzle until the adhesive is mixed.

490 ml Cartridge:

While holding duo-pak cartridge in an upright position, unscrew the plastic nut and remove and discard the cartridge plug. Place cartridge in a 10:1, 490 ml EPX applicator.

Clean orifice if clogged; dispense and discard a small amount of adhesive to even pistons. Attach 10:1 EPX mixing nozzle by:

(a) sliding the nozzle onto the cartridge orifice;

(b) screwing the plastic nut back onto the cartridge to secure the nozzle. Dispense and discard a small amount of adhesive until the mixed adhesive has a milky white appearance. If adhesive is clear, check the small orifice for debris or flow.

Meter-Mix Equipment:

Follow manufacturer's precautions, directions for use, and recommendations.

2) After the adhesive is applied, substrates must be mated within the worklife of the adhesive, 2-2.5 minutes or sooner for one-sided applications. Adhesive thickness less than .005" will yield unpredictable results. The joint design of the substrates should facilitate a .005" to .008" adhesive thickness at the bondline. Adhesive contains .008" microspheres for this purpose.

3) The bonded surfaces should be fixtured, or clamped, for at least 2 hours. The clamping pressure should be sufficient to keep the surfaces in contact during cure (typically 4-8 psi). Plastic parts can be designed to be self-fixturing, negating the need for external fixturing.

Note: Heating the bondline to 150-175°F (66-80°C) for 30 minutes will speed up curing. The parts should be dwelled for a minimum of 10 minutes at room temperature prior to heating to allow more adhesive penetration into the substrates before heat-accelerated cure.

4) Cured adhesive appearance: the adhesive will yellow with time; a rippling effect in the adhesive as it cures is normal and indicates that the adhesive is mixed properly and curing normally.

Handling/Application Information (continued)

Approximate Coverage – By Size of Container [Figures do not include nozzle waste]

Bead Size	Linear ft per 45 ml	Linear ft per 490 ml	Linear ft per mixed gallon
1/2"	2.4	26	196
3/8"	4.5	45	350
1/4"	10.5	102	785
1/8"	37.2	405	3,130
1/16"	147.7	1600	12,240

Coverage in square feet – (.008" bond line) [Figures do not include nozzle waste]

Square ft per 45 ml	Square ft per 490 ml	Square ft per mixed gallon
2.5	49	200

Surface Preparation

3M™ Scotch-Weld™ Structural Plastic Adhesive DP8005 can bond polypropylene, polyethylene and other thermoplastic polyolefins without special surface preparation. However, all substrates should be clean, dry and free of paint, oxide films, oils, dust, mold release agents and other surface contaminants. The amount of surface preparation directly depends on the bond strength and environmental resistance desired by the user.

The following cleaning methods are suggested for common surfaces.

Steel and Aluminum

- 1) Wipe free of dust with oil-free solvent such as acetone or isopropyl alcohol.
- 2) Sandblast or abrade using clean fine grit abrasives (150 grit or finer).
- 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 (or see instructions pertinent to a specific primer).

Note: Aluminum may also be acid etched. Follow the manufacturer's precautions and directions for this procedure.

Plastic/Rubber

- 1) Wipe with isopropyl alcohol.*
- 2) Abrade using fine grit abrasives (150 grit or finer).
- 3) Remove residue by wiping again with isopropyl alcohol.*
- 4) Allow solvent to evaporate before use.

Thermoplastic Polyolefin (TPO)

- 1) Wipe with isopropyl alcohol.*
- 2) Allow solvent to evaporate before use.

Glass

- 1) Solvent wipe surface using acetone or isopropyl alcohol.*
- 2) Allow solvent to evaporate before use.

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

Storage and Shelf Life

For maximum shelf life, store duo-pak cartridges and bulk containers at 40°F (4°C) or below.

When stored at the recommended temperatures in the original unopened containers, this product has a shelf life of 18 months from date of manufacture.

Trademarks

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

3M™ Scotch-Weld™ Structural Plastic Adhesive DP8005 Off White

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/company-us/all-3m-products/-/3M-Scotch-Weld-Structural-Plastic-Adhesive-DP8005?N=5002385+3293241357&rt=rud
Safety Data Sheet (SDS)	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=DP8005 Off White

Family Group

	DP8005 Off White	DP8005 Black
Color Test Condition: Cured	Yellow	Black
Worklife (min) Test Condition: Room Temperature	2.5 to 3	2.5 to 3
Time to Handling Strength (h) Test Condition: Room Temperature	2 to 3	2 to 3
Shore D Hardness Test Condition: Room Temperature	55	60

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.

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.

