

Science. Applied to Life.™



**Last Revision Date:** November, 2026

**Supersedes:** November, 2026

# Technical Data Sheet

## 3M™ Scotch-Weld™ Structural Plastic Adhesive DP8115NS

## Product Description

3M™ Scotch-Weld™ Structural Plastic Adhesive DP8115NS is a two-part, acrylic-based adhesive that bonds many low surface energy plastics such as PP and PE with minimal surface preparation. This adhesive has an off-white/translucent color for discreet bondlines.

## Product Features

- Non-Sag
- Room temperature cure
- Excellent overlap shear strength on plastics
- Contains spacer beads
- Improved GHS classifications and no CMR classifications*
- Low odor formulation*

Note: Unless otherwise indicated, all properties are measured at 22 °C (72 °F)

*Compared to selected acrylic adhesives

## Technical Information Note

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

## Typical Uncured Physical Properties

| Attribute Name | Value |
|---|---|
| Mix Ratio by Volume (B:A) | 10:1 |
| Mix Ratio by Weight (B:A) | 10:1.05 |

| Attribute Name | Temperature | Value |
|---|---|---|
| Base Color | | Off-White, Translucent |
| Accelerator Color | | Off-White, Translucent |
| Color | | Off-White, Translucent |
| Base Density | | 1.01 g/cm³ (8.5 lb/gal) |
| Accelerator Density | | 1.07 g/cm³ (8.9 lb/gal) |
| Base Viscosity | 23 °C (73 °F) | 202000 cP (202000 mPa.s) [1] |
| Accelerator Viscosity | 23 °C (73 °F) | 14000 cP (14000 mPa.s) [1] |

[1] Viscosity measured using parallel plate viscometer; reported viscosity at 0.9 $sec^{-1}$ shear rate.

## Typical Mixed Physical Properties

Temperature: 23 °C (73 °F)

| Attribute Name | Test Method | Substrate | Surface Prep | Value |
|---|---|---|---|---|
| Open Time | ASTM D1002, ISO 4587 | HDPE | IPA Wipe | 15 min [1] |
| Worklife | ASTM D1002, ISO 4587 | HDPE | IPA Wipe | 20 min [2] |
| Time to Handling Strength | ASTM D1002, ISO 4587 | HDPE | IPA Wipe | 120 min [3] |
| Time to Full Cure | | | | 24 h [4] |

[1] Maximum time allowed after applying adhesive to one substrate before bond must be closed and fixed in place.

[2] Maximum time that adhesive can remain in a static mixing nozzle and still be expelled without undue force on the applicator. Cure times are approximate and depend on adhesive temperature.

[3] Minimum time required to achieve 0.3 MPa (50 psi) of overlap shear strength. Cure times are approximate and depend on adhesive temperature.

[4] 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.

## Typical Cured Characteristics

Temperature: 23 °C (73 °F)

| Attribute Name | Test Method | Value |
|---|---|---|
| Shore D Hardness | ASTM D2240 | 62 |

## Typical Performance Characteristics

Substrate: Aluminum
Surface Prep: MEK/Abrade/MEK
Test Condition: Pendulum Impact

| Attribute Name | Test Method | Value |
|---|---|---|
| Impact Shear Strength | ASTM D950 | 20 J [1] |

[1] 21.7J Hammer

### Overlap Shear Strength

Dwell Time: 7 d
Temperature: 23 °C (73 °F)
Test Method: ASTM D1002, ISO 4587

| Test Condition | Substrate | Surface Prep | Value |
|---|---|---|---|
| | ABS | IPA Wipe | 7.3 MPa (1060 lb/in²) [1] |
| | Acrylic (PMMA) | IPA Wipe | 6.8 MPa (990 lb/in²) [1] |
| | Aluminum | MEK/Abrade/MEK | 7.0 MPa (1020 lb/in²) [1] |
| | Cold Rolled Steel | Solvent Wipe | 5.0 MPa (720 lb/in²) [2] |
| | FRP (Epoxy) | IPA Wipe/Abrade/IPA Wipe | 12.0 MPa (1740 lb/in²) [1] |
| | FRP (Polyester) | IPA Wipe/Abrade/IPA Wipe | 9.4 MPa (1360 lb/in²) [3] |
| | Galvanized Steel | Solvent Wipe | 5.0 MPa (730 lb/in²) [2] |
| 23 °C | High Density Polyethylene (HDPE) | Solvent Wipe | 6.4 MPa (930 lb/in²) [3] |
| | HIPS | Solvent Wipe | 4.3 MPa (630 lb/in²) [2] |
| | Low Density Polyethylene (LDPE) | IPA Wipe | 2.7 MPa (390 lb/in²) (Substrate Failure ) [1] |
| | Polycarbonate (PC) | IPA Wipe | 8.3 MPa (1210 lb/in²) [1] |

| Test Condition | Substrate | Surface Prep | Value |
|---|---|---|---|
| 23 °C | Polyester (PET) | Solvent Wipe | 6.3 MPa (910 lb/in²) [1] |
| 23 °C | Polypropylene (PP) | Solvent Wipe | 6.2 MPa (900 lb/in²) [1] |
| | PVC | Solvent Wipe | 9.5 MPa (1380 lb/in²) [2] |
| | Stainless Steel | Solvent Wipe | 5.7 MPa (820 lb/in²) [2] |
| | UHMWPE | IPA Wipe | 7.0 MPa (1010 lb/in²) [1] |

[1] 25 mm (1") wide, 12.7 mm (1/2") overlap samples, 25 mm (1") x 102 mm (4") substrates, bondline thickness: 0.13-0.20 mm (5-8 mil)
Separation rate 2.5 mm/min (0.1 in/min) metal, 51 mm/min (2 in/min) plastic, 510 mm/min (20 in/min) rubber.
Substrate thickness: steel 1.5 mm (60 mil), other metal 1.3-1.6 mm (50-64 mil), rubber and plastic 3.2 mm (125 mil)
Cohesive Failure (CF), Adhesive Failure (AF), Mixed Failure (MF), Substrate Failure (SF)

[2] 25 mm (1") wide, 12.7 mm (1/2") overlap samples, 25 mm (1") x 102 mm (4") substrates, bondline thickness: 0.25 mm (10 mil)
Separation rate 2.5 mm/min (0.1 in/min) metal, 51 mm/min (2 in/min) plastic, 510 mm/min (20 in/min) rubber.
Substrate thickness: steel 1.5 mm (60 mil), other metal 1.3-1.6 mm (50-64 mil), rubber and plastic 3.2 mm (125 mil)
Cohesive Failure (CF), Adhesive Failure (AF), Mixed Failure (MF), Substrate Failure (SF)

[3] 25 mm by 12.7 mm (1" x 1/2"), bondline thickness: 0.07-0.25 mm (3-10 mil). Substrate size: 102mm x 25mm (1" x 4"). Separation rate 1.2 mm/min (0.05 in/min) for metal, 51 mm/min (2 in/min) for plastic, 510 mm/min (20 in/min) for rubber.

Cohesive Failure (CF), Adhesive Failure (AF), Mixed Failure (MF), Substrate Failure (SF)

Dwell Time: 24 h
Substrate: Aluminum
Surface Prep: MEK/Abrade/MEK
Temperature: 23 °C (73 °F)

| Attribute Name | Test Method | Value |
|---|---|---|
| Bell Peel | ASTM D3167 | 4.6 N/mm (26 lb/in width) [1] |

[1] 25 mm (1 in) wide samples; 0.4 mm (0.017 in) bond line thickness. The testing jaw separation rate was 15 cm/min (6 in/min). The bonds are made with 1.6 mm (0.064 in) bonded to 0.64 mm (0.025 in) thick adherends.

Temperature: 23 °C (73 °F)
Test Condition: 10 mm/min
Test Method: ASTM D638, ISO 527

| Attribute Name | Value |
|---|---|
| Elongation | 105 % [1] |
| Modulus | 402.5 MPa (58370 lb/in²) [1] |
| Tensile at Break | 6.9 MPa (1000 lb/in²) [1] |

[1] Type IV dogbone

| Attribute Name | Value |
|---|---|
| Additional Test notes | Note: The data in this sheet were generated using the 3M™ EPX™ Applicator System equipped with an EPX static mixer, according to manufacturer's directions. Thorough hand-mixing will afford comparable results. |

**Overlap Shear Strength**

Dwell Time: 7 d
Temperature: 23 °C (73 °F)
Test Method: ASTM D1002, ISO 4587

| Test Condition | Substrate | Surface Prep | Value |
|---|---|---|---|
| -40 °F | Aluminum | Sandblasted | 8.1 MPa (1180 lb/in²) (116% ) [1] |
| 49 °C (120 °F) | Aluminum | Sandblasted | 3.2 MPa (460 lb/in²) (45% ) [1] |

| Test Condition | Substrate | Surface Prep | Value |
|---|---|---|---|
| 82 °C (180 °F) | Aluminum | Sandblasted | 1.1 MPa (160 lb/in²) (16% ) [1] |
| -40 °F | High Density Polyethylene (HDPE) | Solvent Wipe | 3.8 MPa (550 lb/in²) (59% ) [2] |
| 49 °C (120 °F) | High Density Polyethylene (HDPE) | Solvent Wipe | 4.4 MPa (640 lb/in²) (69% ) [2] |
| 82 °C (180 °F) | High Density Polyethylene (HDPE) | Solvent Wipe | 1.9 MPa (280 lb/in²) (30% ) [2] |

[1] Overlap shear (OLS) strengths were measured on 25 mm wide x 13 mm overlap (1 x 0.5 in) specimens on 25 x 102 x 1.5 mm (1 x 4 x 0.06 in) substrates.
Jaw separation 2.5 mm/min (0.1 in/min). 0.25 mm (10 mil) bondline.

[2] 25 mm (1") wide, 12.7 mm (1/2") overlap samples, 25 mm (1") x 102 mm (4") substrates, bondline thickness: 0.13-0.20 mm (5-8 mil)
Separation rate 2.5 mm/min (0.1 in/min) metal, 51 mm/min (2 in/min) plastic, 510 mm/min (20 in/min) rubber.
Substrate thickness: steel 1.5 mm (60 mil), other metal 1.3-1.6 mm (50-64 mil), rubber and plastic 3.2 mm (125 mil)
Cohesive Failure (CF), Adhesive Failure (AF), Mixed Failure (MF), Substrate Failure (SF)

## Typical Environmental Performance

### Overlap Shear Strength

Dwell Time: 7 d
Substrate: HDPE
Surface Prep: IPA
Temperature: 23 °C (73 °F)
Test Condition: 23 °C
Test Method: ASTM D1002, ISO 4587

| Environmental Condition | Value |
|---|---|
| Diesel Fuel: 500 hrs | 6.1 MPa (890 lb/in²) (96% ) [1] |
| Gasoline: 500 hrs | 0.8 MPa (120 lb/in²) (13% ) [1] |

[1] 25 mm (1") wide, 12.7 mm (1/2") overlap samples, 25 mm (1") x 102 mm (4") substrates, bondline thickness: 0.13-0.20 mm (5-8 mil)
Separation rate 2.5 mm/min (0.1 in/min) metal, 51 mm/min (2 in/min) plastic, 510 mm/min (20 in/min) rubber.
Substrate thickness: steel 1.5 mm (60 mil), other metal 1.3-1.6 mm (50-64 mil), rubber and plastic 3.2 mm (125 mil)

## Handling/Application Information

### Directions for Use

1. To obtain the highest strength structural bonds, paint, oxide films, oils, dust, mold release agents, and all other surface contaminants must be completely removed. The amount of surface preparation depends on the required bond strength and environmental aging resistance desired by user. For suggested surface preparations on common substrates, see the section on surface preparation.
2. Mixing
For Duo-Pak Cartridges
Store cartridges with cap end up to allow any air bubbles to rise towards the tip. To use, simply insert the cartridge into the EPX applicator and start the plunger into the cylinders using light pressure on the trigger. Then remove the cap and expel a small amount of adhesive to ensure material flows freely from both sides of cartridge. For automatic mixing, attach an EPX mixing nozzle to the cartridge and begin dispensing the adhesive. For hand mixing, expel the desired amount of adhesive and mix thoroughly. Mix approximately 15 seconds after obtaining a uniform color.
Mix thoroughly by weight or volume in the proportion specified on the product label or in the typical uncured properties section. Mix approximately 15 seconds after obtaining a uniform color.
3. Apply adhesive and join surfaces within the open time listed for the specific product. Larger quantities and/or higher temperatures will reduce this working time.
4. Allow adhesive to cure at 16 °C (60 °F) or above until completely firm. Applying heat up to 66 °C (150 °F) will increase cure speed.
5. Keep parts from moving during cure. Apply contact pressure or fixture in place if necessary. Optimum bond line thickness ranges from 0.127 mm to 0.508 mm (0.005 to 0.020 inch); shear strength will be maximized with thinner bond lines, while peel strength reaches a maximum with thicker bond lines.
6. Excess uncured adhesive can be cleaned up with ketone type solvents.
*Note: When using solvents, extinguish all ignition sources, including pilot lights, and follow the manufacturer’s precautions and directions for use.

### Surface Preparation

3M™ Scotch-Weld™ Structural Plastic Adhesives are designed to be used on metal, wood, and most plastic surfaces. The following cleaning methods are suggested for common surfaces:
**Steel:**
1. Wipe free of dust and dirt with pure solvent such as acetone or isopropyl alcohol.*
2. Sandblast or abrade using clean fine grit abrasives.
3. Wipe again with clean solvent to remove loose particles.*
**Aluminum:**
1. Wipe free of dust and dirt with pure solvent such as acetone or isopropyl alcohol.*
2. Sandblast or abrade using clean fine grit abrasives.
3. Wipe again with clean solvent to remove loose particles.*
4. When using a primer, apply adhesive within 4 hours of primer application.
**Plastics/Rubbers:**
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 of a silane adhesion promoter to the glass surfaces to be bonded and allow to dry completely before bonding.
*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 under normal conditions of 16 °C to 27 °C (60 °F to 80 °F) in the original packaging, out of direct sunlight. Do not freeze. Use duo-pak containers and bulk pail containers within 12 months from the date of manufacture. Bulk shelf life may vary; please consult your local 3M contact.

## Precautionary Information

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

## Automotive Disclaimer

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

## Information

**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.

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

3M, Scotch-Weld and EPX are trademarks of 3M Company.
©3M 2026 (11/26)

## Typical Environmental Performance

### Overlap Shear Strength

Dwell Time: 7 d
Substrate: HDPE
Surface Prep: IPA Wipe
Temperature: 23 °C (73 °F)
Test Condition: 23 °C
Test Method: ASTM D1002, ISO 4587

| Environmental Condition | Value |
|---|---|
| 49 °C + 80 %RH: 500h | 6.6 MPa (950 lb/in²) (102% ) [1] |
| 85 °C + 85 %RH: 500 hrs | 6.6 MPa (950 lb/in²) (102% ) [1] |
| Salt water (5% wt in water): 500 hrs | 6.2 MPa (900 lb/in²) (97% ) [2] |
| Water: 500 hrs | 6.0 MPa (870 lb/in²) (94% ) [2] |

[1] 25 mm by 12.7 mm (1" x 1/2"), bondline thickness: 0.07-0.25 mm (3-10 mil). Substrate size: 102mm x 25mm (1" x 4"). Separation rate 1.2 mm/min (0.05 in/min) for metal, 51 mm/min (2 in/min) for plastic, 510 mm/min (20 in/min) for rubber.

Cohesive Failure (CF), Adhesive Failure (AF), Mixed Failure (MF), Substrate Failure (SF)

[2] 25 mm by 12.7 mm (1" x 1/2"), bondline thickness: 0.07-0.25 mm (3-10 mil). Substrate size: 102mm x 25mm (1" x 4"). Separation rate 1.2 mm/min (0.05 in/min) for metal, 51 mm/min (2 in/min) for plastic, 510 mm/min (20 in/min) for rubber.
Cohesive Failure (CF), Adhesive Failure (AF), Mixed Failure (MF), Substrate Failure (SF)