

## OTHER

### 3M™ 1099 Adhesive

3M™ Scotch-Weld™ Nitrile High Performance Plastic Adhesive 1099-L is a medium viscosity grade for most brush or flow applications.

- Fast drying
- Provides strong, flexible bonds. Resists weathering, water, fuels, oil and plasticizers
- Bonds vinyl extrusions and sheeting. (May stain light colored vinyls)
- Also bonds fabrics, foams and many plastics. (Not recommended for polyolefin plastic bonding)
- May be heat cured to obtain superior physical properties

#### Typical Physical Properties:

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

Product	3M™ Scotch-Weld™ Nitrile High Performance Plastic Adhesives	
	1099	1099-L
Viscosity (approx.): Brookfield RVF @ 80°F (27°C)	2000-4000 cps. (#3 sp @ 10 rpm)	200-325 cps. (#2 sp @ 20 rpm)
Solids Content (by wt.):	31 - 37%	22 - 26%
Base:	Nitrile Rubber	Nitrile Rubber
Color (wet & dry):	light tan	light tan
Net weight (approx.): (lbs./gallon)	7.3 - 7.5 lbs./gal.	7.0 - 7.4 lbs./gal.
Flashpoint (closed up):	0°F (-18°C)	0°F (-18°C)
Solvent:	Acetone	Acetone and Methyl Ethyl Ketone (MEK)
Bonding Range: (10 mil wet film 2 surfaces)	Up to 40 minutes	Up to 20 minutes
Coverage: (@ 2.5 gms./ft.2 dry wt.)	456 sq. ft./gal.	313 sq. ft./gal.

#### Handling/Application Information Directions for Use:

**Surface Preparation:** Remove all dust, dirt, oil, grease, wax, loose paint, etc. Wiping with methyl ethyl Ketone (MEK)\* or 3M™ Citrus Base Cleaner\* will aid in preparing the surface for bonding.

**Application Temp.:** For best results, the temperature of the adhesive and surfaces should be at least 65°F (18°C).

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**Application:** Stir well before using.

**Porous Surface:** Brush, flow or spray a thin, even coat of adhesive to one or both surfaces. Coating both surfaces is preferred since it gives greater strength and permits longer open time before bonding. Very absorbent materials may require more than one coat. Bond while adhesive is still wet or aggressively tacky. Join surfaces with firm pressure.

**Non-Porous Surface:** Brush, flow or spray a thin, even coat of adhesive to both surfaces. Allow adhesive to dry until tacky. Join surfaces with firm pressure.

**Drying Time:** Drying time depends on temperature, humidity, air movement, and porosity of the materials bonded. Greater immediate strength may be obtained by heat or solvent reactivation. See Reactivation below.

**Reactivation:** To solvent reactivate, coat both surfaces with adhesive. Allow to dry tack-free. Lightly wipe one surface with a solvent such as methyl ethyl ketone (MEK).\* Complete bond within 30 seconds. To heat reactivate, coat both surfaces with adhesive. Allow adhesive to dry completely. Reactivate by heating one or both surfaces to a minimum of 180°F (82°C). Assemble immediately (while hot), using firm pressure to ensure contact.

**Curing:** 3M™ Scotch-Weld™ Nitrile High Performance Plastic Adhesive 1099 and 1099-L may be heat cured to obtain superior properties. Cure assembled parts at time and temperature listed using 100 psi pressure on the bond line.

Temperature of Bondline	Time for Minimum Cure
200°F (93°C)	120 minutes
240°F (116°C)	40 minutes
280°F (138°C)	12 minutes
320°F (160°C)	8 minutes
360°F (182°C)	5 minutes
400°F (204°C)	2 minutes

**Cleanup:** Excess adhesive may be removed with methyl ethyl Ketone (MEK)\* or acetone,\* preferably while adhesive is still wet.

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