

Momentive's SilGrip PSA529 is a high-performance silicone contact adhesive used in applications where other adhesives and bonding options tend to fail. Applied using a brush or roller, it is an excellent candidate for use in laminating and assembly applications that require resistance to high temperatures. Maintaining flexibility and adhesion to difficult substrates under extremely harsh conditions is aided by the adhesive's silicone backbone.



SilGrip PSA529 Technical Features



Good shear and peel strength



Excellent adhesion, including to low surface energy materials



Stability in harsh environments



Wide operating temperature range



Chemical, moisture and weathering resistance



Good electrical insulation properties



High oxygen permeability

Use as an alternative to:

- Fasteners
- Urethanes
- Epoxies
- Rubber cement
- Spray adhesives

Basic Uses

SilGrip PSA529 offers a range of uses where high performance adhesion is required, such as freezer components, and applications for outdoor exposure, building and construction, automotive, transportation, aerospace, electronics and flexible substrates. It is also be used in general assembly applications to bond a variety of substrates, including silicone, glass cloth, aluminum and carbon fibers.

Typical Physical Properties

Viscosity at 25°C (77°F), cps Brookfield RVF, #3 spindle 20 rpm	2,500
% Solids	55%
Flash point °C (°F)	1.6 (35)
Solvent	Toluene

Typical Adhesive Properties using PSA529 with 3.3% Silgrip SRC18

Probe tack, g/cm ²	630
Lap shear ¹ , 70 °C (min) RT aged	> 24 hours
Peel strength ² , g/in (180° peel at 12 in/min)	470

1) Tack measured after solvent is evaporated, 20 minutes air dry after PSA applied to substrate

2) 2 mil dry adhesive thickness, 2 mil primed polyester film, catalyzed with 3.3% SRC18, curing cycle: 30 minutes air dry. Aged one week.

Preparation and Application of SilGrip* PSA529 using SilGrip SRC18 Catalyst

SilGrip PSA529 catalyzed with SilGrip SRC18 is used to bond a variety of materials, including silicone, aluminum, carbon fiber, glass cloth, as well as many other substrates. Before you begin to mix the PSA with the catalyst, please be sure to review each product's Safety Data Sheet. Remember to work in a well-ventilated area and follow all appropriate safety protocols.

Things you will need to apply SilGrip PSA529:

- SilGrip PSA529
- SilGrip SRC18
- A cup or container
- A stick to mix the materials together
- A scale
- A roller, brush or other suitable coating tool
- A cloth or towel to clean the substrates to be bonded
- An appropriate solvent for cleaning

General Instructions

- Step 1:** Clean and dry all surfaces to be bonded. A lint free towel and an appropriate solvent can be used to remove all grease, oil and debris.
- Step 2:** Combine the PSA with the catalyst using the following typical product blending ratio - SilGrip PSA529 100 parts by weight to SilGrip SRC18 3.3 parts by weight.
- Step 3:** Turn on your scale. Place the cup or container on the scale. Zero out the scale.
- Step 4:** Pour SilGrip PSA529 into cup or container on scale. Once complete, zero out the scale again.
- Step 5:** Add SilGrip SRC18 to the SilGrip PSA529 - pour 3.3 parts per weight of SilGrip SRC18 into the SilGrip PSA529. You may want to pre-pour your components or use a medicine dropper for the SilGrip SRC18.
- Step 6:** Stir the liquid thoroughly until the SilGrip SRC18 is well mixed with the SilGrip PSA529.
- Step 7:** Apply the adhesive to 1 of the 2 substrates to be bonded using your brush, roller or suitable coating tool. Thinning, if required, may be done using toluene or paint thinner.
- Step 8:** Before assembling the pieces, you must allow for the thinner in the adhesive to evaporate. This is known as drying time. The length of drying time will depend on the thinner used, adhesive thickness, and temperature. A good starting point is 20 minutes. A heat gun could also be used to speed up drying time.
- Step 9:** After 20 minutes, check the substrate. It should be tacky.
- Step 10:** If the solvent is evaporated from the adhesive, the surfaces to be bonded should be firmly pressed together and the adhesive allowed to cure. The recommended adhesive thickness is 3 to 4 mils when dry.

Cure is primarily a function of time and temperature. Room temperature cure at 21°C to 25°C (70°F to 77°F) will require 3 to 7 days for the catalyzed adhesive to develop maximum strength. The cure time can be shortened by elevating temperature to a maximum of 165°C (329°F). A typical shortened cure cycle is 24 hours at 25°C (77°F) followed by 24 hours at 100°C (212°F).

If there is any leftover catalyzed adhesive, store it in tightly closed containers and use within 48 hours.

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