



Technical Data Sheet

DOWSIL™ 7645 Adhesive

FEATURES

- Low adhesive force
- Low migration
- Super wet-out performance

COMPOSITION

- Polydimethyl/methylvinyl siloxane polymer and resin dispersed in xylene and toluene

Pressure Sensitive Adhesive

APPLICATIONS

- Applications requiring low adhesion and good wet-out performance with highly stable performance for protective tape/film

TYPICAL PROPERTIES

Specification Writers: These values are not intended for use in preparing specifications.

Test	Unit	Result
Appearance		Clear to slightly hazy, viscous liquid
Diluents		Xylene and Toluene
Viscosity at 25°C	mP•s	50,000–80,000
Nonvolatile content	%	38 ~ 42
Peel adhesion (*)	gf/inch	5

(*)1mil dry adhesive thickness, 2 mil polyester film, 1.0% of SYL-OFF™ 7678 crossliner and 0.5% of 4000 catalyst, curing cycle 1minute at 120°C, SUS, 12 inch/minute speed at 180°angle

DESCRIPTION

DOWSIL™ 7645 Adhesive is a silicone pressure sensitive adhesive performing very well for protective film application having low adhesion force and great wet-out performance. It could be applied in industrial adhesive tape/film required low adhesion force with highly stable performance like low migration and non-adhesion build up.

It shows excellent wet-out performance to various target material such as glass, metal panel, display screen with DOWSIL™ 7646 adhesive and DOWSIL™ 7651 adhesive as one of low adhesion PSA series. And It presents proper adhesion force without any further mixture on display window or glass requiring protective film

HOW TO USE

DOWSIL 7645 adhesive contain 40% active ingredient and can be further diluted in compatible solvent like toluene, xylene and so on to control viscosity and coating weight when it coated. When using any solvent, always provide adequate ventilation.

Adhesive is normally coated onto flexible substrates such as Polyester, Polyolefin, PTFE or Polyimide etc... and silicone primer is recommended to increase bonding strength with backing substrate. Also corona or plasma treatment can help to improve anchorage performance.

Normally DOWSIL 7645 adhesive is used with 1.0 part SYL-OFF™ 7678 Crosslinker and 0.5 part of SYL-OFF™ 4000 Catalyst. To improve bonding strength with backing material, SYL-OFF™ 7689 Crosslinker can be applied with 9250 or 9176 anchorage additive rather than SYL-OFF™ 7678 Crosslinker, however primer treatment would be best option to get full anchorage performance.

During the mixing, DOWSIL 7645 adhesive and Crosslinker should be mixed homogeneously before add catalyst and once it is mixed well, quick usage within 6~8 hours is recommended for stable performance.

CURING

The adhesive can be cured at 120°C for 1 minute by addition reaction in a vented, continuous coating oven. Higher cure temperature and longer cure time (@150°C for 2 min) help to improve Si-PSA performance and anchorage property with backing material. Air flow patterns, air volume of oven and velocity of coating line will have an impact on adhesive curing speed. If the cure speed needs to be increased or process oven temperature lowered, the SYL-OFF 4000 Catalyst level can be increased by up to 1.5%.

NOTE: The catalyst in this adhesive system is required to obtain pressure sensitive properties. It is also subject to contamination by peroxides and other materials. Clean all mixing and coating equipment and use dedicated new containers for mixing when possible.

HANDLING PRECAUTIONS

ATTENTION: Containers will have vapor and/or product residues when

emptied. All hazard precautions on label must be observed when handling emptied containers. DO NOT CUT OR WELD CONTAINERS. DO NOT REUSE CONTAINERS.

**PRODUCT SAFETY
INFORMATION REQUIRED FOR
SAFE USE IS NOT INCLUDED IN
THIS DOCUMENT. BEFORE
HANDLING, READ PRODUCT
AND SAFETY DATA SHEETS
AND CONTAINER LABELS FOR
SAFE USE, PHYSICAL AND
HEALTH HAZARD
INFORMATION. THE SAFETY
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DISTRIBUTOR, OR BY CALLING
DOW CUSTOMER SERVICE.**

USABLE LIFE AND STORAGE

When stored at or below 25°C in the original unopened containers DOWSIL 7645 Adhesive has a usable life of 15 months from the date of production.

PACKAGING INFORMATION

This product is available by pail size with 17 kg and drum size with 180 kg.

LIMITATIONS

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

HEALTH AND ENVIRONMENTAL INFORMATION

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and

regulatory compliance specialists available in each area.

For further information, please see our website, www.consumer.dow.com or consult your local Dow representative.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

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