

DOW CORNING® 7657 Adhesive, SYL-OFF® 4000 Catalyst

FEATURES

- Low curing temperatures

COMPOSITION

- Polydimethyl siloxane gum and resin dispersed in xylene
- Reactive organo-platinum complex dispersed in polysiloxane

Pressure sensitive adhesive tapes

APPLICATIONS

- Manufacture of adhesive tapes, labels and transfer films
- Bonding substrates such as polyolefins

TYPICAL PROPERTIES

Specification writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales representative prior to writing specifications on this product.

Property	Unit	Value	
As supplied		DOW CORNING 7657 Adhesive	SYL-OFF 4000 Catalyst
Appearance		Clear, viscous liquid	Light straw liquid
Diluent		Xylene	-
Viscosity at 25°C (77°F)	cp	30,000	400
Specific gravity at 25°C (77°F)		-	0.96
Nonvolatile content	%	56.5	-
Flash point, closed cup	°C	27	46
	°F	80	115

DESCRIPTION

DOW CORNING 7657 Adhesive is a silicone pressure sensitive adhesive that, when used with SYL-OFF 4000 Catalyst, offers the ability to prepare pressure sensitive tape constructions at low curing temperatures. It also yields a stable release system when applied and cured on release liner coated with SYL-OFF® Q2-7785 Coating.

HOW TO USE

DOW CORNING 7657 Adhesive is normally catalyzed with 0.4 parts per hundred SYL-OFF 4000 Catalyst. The adhesive is supplied as a 56.5% (range 55-58%) nonvolatile content product in xylene. It can be further thinned with toluene, xylene or other nonpolar solvents.¹ Once the adhesive and catalyst are mixed, the bath life at

21°C (70°F) in a covered container is 24 hours. Application to backing materials is accomplished via conventional tape coating equipment.

¹ When using any solvent, always provide adequate ventilation. Follow the solvent manufacturer's safe handling precautions as well as local, state and federal guidelines.

Curing

When used in the manufacture of adhesive tape, catalyzed DOW CORNING 7657 Adhesive is normally coated onto flexible substrates such as polyester or polyolefin films. In this configuration, the adhesive can be cured at 100°C (212°F) for 2 minutes (or 125°C [257°F] for 1 minute) in a vented, continuous coating oven. Air flow

patterns, air volume and velocity will have an impact on adhesive curing speed. If the cure speed needs to be increased or process oven temperatures lowered, the SYL-OFF 4000 Catalyst level can be increased by up to 1.0%.

Completeness of cure can be determined by laminating a test specimen to a steel panel, similar to a 180° peel test, and pulling the tape rapidly from the panel by hand. When completely cured, the adhesive will remain on the backing. If not fully cured, an adhesive residue will remain on the steel panel.

NOTE: The catalyst in this adhesive system is required to obtain pressure sensitive adhesive 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.

Anchorage to backing

To obtain optimum anchorage to tape backings, such as polyester and polyolefin films, it may be necessary to use a primer. Consult Dow Corning for assistance in selecting a primer formulation.

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. Before handling, read product and safety data sheets and container labels for safe use, physical and health hazard information. The material safety data sheet is available on the Dow Corning website at www.dowcorning.com. You can also obtain a copy from your local Dow Corning sales representative or Distributor or by calling your local Dow Corning Global Connection.

USABLE LIFE AND STORAGE

When stored at or below 50°C (122°F) in the original unopened containers DOW CORNING 7657 Adhesive has a usable life of 12 months from the date of production.

When stored at or below 25°C (77°F) in the original unopened containers SYL-OFF 4000 Catalyst has a usable life of 24 months from the date of production.

PACKAGING

This product is available in a variety of container sizes. Contact your local Dow Corning Customer Service representative for information about container sizes available in your area.

Containers of SYL-OFF 4000 Catalyst should be stored upright and under cover. This product is sensitive to light and should be kept in darkness.

LIMITATIONS

Shipping: DOT Classification: flammable.

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 Corning has an extensive Product Stewardship organization and a team of Health, Environment and Regulatory Affairs specialists available in each area.

For further information, please see our website, www.dowcorning.com or consult your local Dow Corning 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 Dow Corning's 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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Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

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