



Technical Data Sheet

SYL-OFF™ 7660 Adhesive

Base siloxane polymer component for low adhesion Pressure Sensitive Adhesive (PSA) tape

Features & Benefits

- Very stable and low adhesion
- Very good anchorage
- Good coat-ability
- Low migration

Composition

- The mixture of vinyl functional polymethylsiloxane and silicone resin

Applications

- Applications requiring low adhesion and good wet-out performance for protective tape/film
- Flexibility to use with other addition cure PSA to control peeling adhesion

Typical Properties

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

Test	Unit	Result
Physical form		Viscose Liquid
Appearance		Clear
Nonvolatile content	%	96%
Viscosity at 25°C	mPa.s	55,000
Peel adhesion	g/inch	< 2

1. 15 u dry adhesive thickness, 50 u PET film, 2 % SYL-OFF™ 7028 SL Crosslinker, 1.8% SYL-OFF™ 4000 Catalyst, curing cycle 1 minute at 150°C, 0.3 m/m, 180 degree angle.

Description

SYL-OFF™ 7660 Adhesive is a silicone PSA that gives low adhesion performance. It could be applied as adhesive for industrial protective film to control of adhesion. It shows excellent wet-out performance to various target material such as glass, metal panel, display screen and adhere well with great wet-out performance itself though it has very lower adhesive force.

SYL-OFF™ 7660 Adhesive can be blended with additional cure type PSAs like DOWSIL™ 7652 Adhesive, DOWSIL™ 7657 Adhesive PSA etc., to adjust adhesion.

UNRESTRICTED – May be shared with anyone

®™ Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

SYL-OFF™ 7660 Adhesive

© 2018 The Dow Chemical Company. All rights reserved.

How To Use

SYL-OFF™ 7660 Adhesive can be coated on backing material directly as itself or blending with other PSA and normally used with SYL-OFF™ SL 7028 Crosslinker and SYL-OFF™ 4000 Catalyst.

To improve bonding strength with backing material, anchorage additive can be applied. However, corona treatment of primer treatment on coated substrate would be best option to get good anchorage performance. This product is supplied as high solid content, and it can be further diluted in compatible solvent like toluene, heptane, ethyl acetate, MEK, mixture solvent with aliphatic solvent etc. When using any solvent, always provide adequate ventilation.

The following procedure is recommended for the preparation of coating bath. Equipment should be clean and dry, preferably constructed from stainless steel or glass. Disperse SYL-OFF™ 7660 Adhesive in the process solvent. The suggested bath solids are 40 to 60% silicone on a weight basis.

1. Add crosslinker such as SYL-OFF™ SL 7028 and disperse thoroughly.
2. Add anchorage additive such as SYL-OFF™ 297 Anchorage Additive and disperse thoroughly.
3. Add Pt catalyst SYL-OFF™ 4000 Catalyst disperse again.

Table 1: Typical formulation using SYL-OFF™ 7660 Adhesive

Component	wt.%, parts
SYL-OFF™ 7660 Adhesive	100
SYL-OFF™ SL 7028 Crosslinker	2.0
SYL-OFF™ 297 Anchorage Additive	1.5
SYL-OFF™ 4000 Catalyst	1.8
Solvent	100

Note: When transferring flammable liquids from one container to another, there is a fire risk due to static electric charge build-up. This risk is minimized by connecting both containers to a common ground.

Application With Other PSA

SYL-OFF™ 7660 Adhesive can be blended with other additional cure type adhesives like high adhesion SYL-OFF™ 7660 Adhesive. Three examples are listed in the following table.

Table 2: Applied mixture coating of SYL-OFF™ 7660 Adhesive and DOWSIL™ 7657 Adhesive for adhesion Control

Component	Mixing Ratio %
SYL-OFF™ 7660 Adhesive	80 50 20
DOWSIL™ 7657 Adhesive	20 50 80
Adhesion target, g/in	2.5 9.0 40

UNRESTRICTED – May be shared with anyone

™Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

SYL-OFF™ 7660 Adhesive

© 2018 The Dow Chemical Company. All rights reserved.

Application With Other PSA (Cont.)	Since the adhesion is affected by many factors such as dry PSA thickness, substrate, cure condition of PSA etc., for detail applications, please consult your local representatives for more information.
Bath Life	The life of the formulated bath viscosity varies considerably with bath concentration, the solvent, the specific formulation, and the temperature of the surroundings. Under normal bath condition at room temperature the bath should be used up within 6 hours.
Cure	<p>When used in the manufacture of pressure sensitive constructions, catalyzed SYL-OFF™ 7660 Adhesive is normally coated onto flexible substrates such as Polyester, and be cured at over 140°C for 90 seconds in as vented, continuous coating oven. Air flow patterns, air volume and velocity will have an impact on adhesive curing speed. The insufficient temperature can cause residue and poor anchorage performance by uncured adhesive. The excess amount of catalyst causes a short bath life.</p> <p>Note: The catalyst in this adhesive system is required to obtain pressure sensitive properties. It is also subject to contamination by peroxides and other chemical residues. Clean all mixing and coating equipment and use dedicated new containers for mixing when possible.</p>
Handling Precautions	<p>ATTENTION: Container 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.</p> <p>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 DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT CONSUMER.DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.</p>
Usable Life and Storage	When stored at or below 32°C (90°F) in the original unopened containers, SYL-OFF™ 7660 Adhesive has a usable life of 12 months from the date of production.
Packaging Information	This product is available by pail size with 18 kg or 180 kg drum.
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, consumer.dow.com or consult your local Dow representative.

consumer.dow.com

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.

Dow's sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

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.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, DOW SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY.

DOW DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

