Technical Data Sheet

DOWSIL™ 7651 Adhesive

FEATURES & BENEFITS

- Low adhesive force
- Low migration

COMPOSITION

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

Pressure sensitive adhesive.

APPLICATIONS

- Manufacture of adhesive tapes, labels and transfer films.

TYPICAL PROPERTIES

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

Property	Unit	Result
Appearance		Clear to slightly hazy, viscous liquid
Diluent		Xylene and toluene
Viscosity at 25°C	mP·s	15000-40000
Nonvolatile content	%	38-42
Peel adhesion(*1)	oz/in	<1
Flash point, closed cup	°C	5

(*1) 0.8mil dry adhesive thickness, 2mil polyester film, 98.56% DOWSIL 7651 Adhesive, 0.95% of SYL-OFF™ 7678 Crosslinker, 0.49% SYL-OFF™ 4000 catalyst, curing cycle 1minute at 120°C, stainless steel, 12 inches/minute, 180°angle.

DESCRIPTION

DOWSIL™ 7651 Adhesive is a silicone pressure sensitive adhesive that, when used with SYL-OFF™ 7678 Crosslinker and SYL-OFF™ 4000 Catalyst, offers the ability to prepare pressure sensitive constructions at low curing temperature.

HOW TO USE

A typical formulation is 98.56% DOWSIL 7651 Adhesive, 0.95% SYL-OFF 7678 Crosslinker and 0.49% SYL-OFF 4000 Catalyst. The adhesive is supplied as a 40% nonvolatile content product in xylene and toluene. It can be further diluted to reduce the viscosity if desired. When using any solvent, always provide adequate ventilation. Follow the solvent manufacturer's safe handling precautions as well as local, state and federal guidelines. Once the adhesive, crosslinker and catalyst are mixed, the bath life at 25°C in a covered container is greater than 15 hours.

CURING

When used in the manufacture of pressure sensitive constructions, catalyzed DOWSIL 7651 Adhesive is normally coated onto flexible substrates such as polyester, Polyolefin, PTFE or polyimide films. In this configuration, the adhesive can be cured at 120°C 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 temperature 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 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 DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT WWW.CONSUMER.DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

USABLE LIFE AND STORAGE

When stored at or below 25°C in the original unopened containers DOWSIL 7651 Adhesive has a usable life of 15 months from the date of production.

PACKAGING INFORMATION

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

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.

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