Technical Data Sheet

DOWSIL™ TC-3035 S Soft Thermal Gel

One-part, ultra soft thermally conductive gel

Features & Benefits

- Cures to ultra soft thermal gel at 80°C for 30 min
- Use as printable or dispensable thermal gel
- Ultra soft thermal gel for thermal transferring, stress relieving and shock damping
- Resists heat/humidity and other harsh environments
- Very long working time at room temperature
- Excellent thermal performance and reliability

Composition

- One-part
- Ultra soft silicone thermal gel

Applications

- Thermal interface material used in smartphone CPU, memory chips
- Dispense or screenprint to various thickness and shapes for general thermal management of PCBA assemblies

Typical Properties

Specification Writers: These values are not intended for use in preparing specifications. Certain tests mentioned below may only be performed during development of the product and may no longer be provided if the product is commercialized.

Property	Unit	Result
One or Two-part		One
Color		Pink
Viscosity (10 s^{-1})	Pa•s	200
Extrusion Rate	g/min	100
Curing Time at 80°C	Min	30
Specific Gravity (Cured)	g/cm^3	3.2
Working Time at 25°C	Days	> 30
Dielectric Strength	kV/mm	14
Cured Hardness	Shore OOO	65
Volume Resistivity	ohm*cm	6.0 E+13
Thermal Conductivity	W/mK	4.0
BLT (Bond Line Thickness)	Micron meter	90
Storage Temperature	°C	< 10
NVC	%	99.9

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Description

DOWSIL™ TC-3035 S Soft Thermal Gel is one-part, heat cure silicone-based thermally conductive gel with good extrusion rate. It's supplied as non-flowable paste and can be pressed to 90 um thickness in thermal management application. It can be cured to ultra soft gel with lower modulus and can meet very lower stress applications.

Application Methods

- Auto/manual dispensing
- Auto/manual screenprinting

Processing/Curing

DOWSIL™ TC-3035 S Soft Thermal Gel can be dispensed or screen printed to various thickness and shapes and cured to ultra low soft thermal gel within 30 min at 80°C, or room temperature curing after long time. After fully curing, it maintains its ultra soft thermal gel properties.

Working Time (Open Time)

DOWSIL™ TC-3035 S Soft Thermal Gel starts curing very slowly after being dispensed on substrates at room temperature. Generally, the working time is more than 30 days at room temperature.

Using Temperature Ranges

For most uses, silicone adhesives should be operational over a temperature range of -45 to 200°C (-49 to 392°F) for long periods of time. However, at both the low- and high-temperature ends of the spectrum, behavior of the materials and performance in particular applications can become more complex and require additional considerations. For low-temperature performance, thermal cycling to conditions such as -55°C (-67°F) may be possible, but performance should be verified for your parts or assemblies.

Handling Precautions

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 DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Usable Life and Storage

The product should be stored in its original packaging with the cap tightly fastened to avoid contamination. Storage condition is suggested below 10°C. When it was stored at low temperature, the material package should be back to room temperature after 30–60 min exposure.

Packaging Information

Typical 300 ml Al cartridge packaging size is available for this product. Please contact your local Dow representative for more information on special packaging availability.

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, dow.com or consult your local Dow representative.

Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

How Can We Help You Today?

Tell us about your performance, design, and manufacturing challenges. Let us put our silicon-based materials experience, application knowledge, and processing experience to work for you.

For more information about our materials and capabilities, visit **dow.com**.

To discuss how we could work together to address your specific needs, go to **dow.com** for a contact close to your location. Dow has customer service teams, science and technology centers, application support teams, sales offices, and manufacturing sites around the globe.

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