WACKER

CREATING TOMORROW'S SOLUTIONS

MOBILITY I LOW VOLATILE CONTENT SILICONES

LOW VOLATILE SILICONES FOR AUTOMOTIVE APPLICATIONS

Silicones are the material of choice in automotive electronics, because they protect sensitive components, ensure functional safety over the whole component life span and provide reliable sealing, bonding, potting and encapsulation.

The Challenge

However, low-molecular-weight siloxane has been reported to cause electrical contact failure in the low-voltage, low-current range under certain conditions. The nonreactive cyclic dimethyl polysiloxane – generally D3 to D10 – is volatile and therefore can partially evaporate both during and after curing.

The Solution

Reduced volatile content silicones have proven to be an effective material to solve this problem. For silicone usage on connectors, Toyota specified the low-molecular-weight siloxane content to D4 – D8 < 350 ppm.
Our low volatile content silicones meet this requirement and allow safe and economical automotive applications.

Silicones with low volatile content, D4 – D8 < 350 ppm*

Type	Product	Features	System
Adhesives	ELASTOSIL® RT 722	Low volatile, low-energy cure adhesive (FIPG), excellent mechanical properties	2-part, 1:1
	ELASTOSIL® RT 725 LV	Low volatile, low-energy cure adhesive, UV tracer	2-part, 1:1
	SEMICOSIL® 9882	Low volatile, fast cure, designed for large part CIPG and for ovenless IR curing process	2-part, 1:1
Potting / Gel	WACKER SilGel® 613	Low volatile, very soft general purpose gel, clear	2-part, 10:1; BKS**
	SEMICOSIL® 911	Low volatile, very soft, low bleed gel, specified ion content, thixotropic	2-part, 1:1
Thermal Interface	SEMICOSIL® 961 TC	Low volatile, thermally conductive gap filler (2.3 W/mK), high dosing rate, UL 94 V-0	2-part, 1:1
	SEMICOSIL® 962 TC	Low volatile, thermally conductive gap filler (3 W/mK), high dosing rate, UL 94 V-0	2-part, 1:1
	SEMICOSIL® 963 TC	Low volatile, thermally conductive gap filler (3 W/mK), high dosing rate, soft, tacky gel, UL 94 V-0	2-part, 1:1
	SEMICOSIL® 971 TC	Thermally conductive adhesive (2 w/mK)	1-part

* Analytics done on cured material: extraction with acetone, gas chromotography to determine level of cyclics
** BKS = Batch-Kit System: base component to be combined with ELASTOSIL® CAT PT, ELASTOSIL® CAT PT-F or ELASTOSIL® CAT UV to allow curing at room temperature, under heat or by UV light

ELASTOSIL® SEMICOSIL® WACKER SilGel®

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