

— 101.705 —

**DOW CORNING® 734 RTV**  
ADHESIVE/SEALANT

**One part, ready to use, free-flowing liquid**

**FEATURES**

- ◆ Flowable and self-levelling
- ◆ Excellent electrical insulating properties
- ◆ Pours freely for easy application
- ◆ Simple to apply - one part, room temperature cure
- ◆ Flexible from -65°C to +265°C
- ◆ Excellent resistance to weathering, vibration, moisture and ozone
- ◆ Good chemical stability
- ◆ Its low viscosity allows it to fill minute crevices and voids in potting and sealing applications.
- ◆ Cures when exposed to moisture in the air to form a tough, flexible rubber.

**APPLICATIONS**

- ◆ For general purpose adhesive and sealing application in the electronics industry.
- ◆ Particularly suitable for sealing assemblies with fine joints as well as cable entries and connectors, to ensure that they remain water tight.
- ◆ Can be used for slicing cables and wires and producing formed-in-place gaskets.
- ◆ Due to its good adhesion to other silicone rubbers, ideally suited for making fields repairs on existing equipment where a part of an existing silicone encapsulant has been removed.

**TYPICAL PROPERTIES**

Specifications writers: These values are not intended for use in preparing specifications. Please contact Dow Corning Europe, La Hulpe, Belgium before writing specifications on this product.

CTM*	ASTM*	Property	Unit	Value
<b>Physical properties, as supplied at 25°C and 50% relative humidity</b>				
		Colour		White or clear translucent
0050	D1084	Viscosity at 25°C	mPa.s	46,000
0098		Skin-over time	minutes	8
0095		Tack-free time	minutes	<60
		Cure time - 3mm exposed bead	hours	24
<b>Physical properties, cured 7 days at 25°C and 50% relative humidity</b>				
0022	D792	Relative density		1.03
0099	D2240	Durometer hardness	Shore A	27
0137A	D412	Tensile strength	MPa	1.4
0137A	D412	Elongation at break	%	300
0159A	D624	Tear strength - die B	kN/m	3.6
		Brittle point	°C	-70
0420		Volume coefficient of thermal expansion	1/K	0.00093
0224	D2214	Thermal conductivity	W/(m.K)	0.21
<b>Electrical properties, cured 7 days at 25°C and 50% relative humidity</b>				
0114	D149	Dielectric strength	kV/mm	17
0249	D257	Volume resistivity	ohm.cm	1.7x10 <sup>15</sup>
0112	D150	Permittivity at 100Hz		2.7
0112	D150	Permittivity at 100kHz		2.7
0112	D150	Dissipation factor at 100Hz		0.002

## TYPICAL PROPERTIES (continued)

CTM*	ASTM*	Property	Unit	Value
0112	D150	Dissipation factor at 100kHz		0.0006

\* CTM : Corporate Test Method, copies of CTM's are available on request.  
ASTM : American Society for Testing and Materials.

### HOW TO USE

#### Substrate preparation

DOW CORNING 734 RTV Adhesive/Sealant forms a bond to most clean, dry surfaces of metals, glass, silicone or organic resins and vulcanised silicone rubber. However, bond strength may be inconsistent unless a primer is used. For maximum adhesion, the use of DOW CORNING® 1200 Primer is recommended. For the best results:

1. Clean the surface with a chlorinated solvent (see Handling Precautions), a slightly abrasive pad or a coarse lint-free cloth.
2. Rinse cleaned surface with acetone or methyl ethyl ketone.
3. Apply a thin coat of primer by dipping, brushing or spraying.
4. Allow the primer to dry for about 1 hour, at room temperature and with a relative humidity of 50% or higher. Longer drying time is recommended at lower relative humidity.
5. Silicone rubber surfaces should not normally be primed, but only roughened slightly with abrasive paper and rinsed with acetone.

#### How to apply

Apply DOW CORNING 734 RTV Adhesive/Sealant to the prepared surface in a uniform thickness of 0.25-0.75mm. If the adhesive is to be used to bond two surfaces, apply it only to one surface and allow it to establish a uniform contact before putting the other surface in place. When placing the second surface, use enough pressure to spread the adhesive and displace any trapped air.

Best adhesion is obtained with an approximately 1.5mm thick glue line. Metal to metal bonds should not overlap more than 25mm. Let the unit stand undisturbed until it cures sufficiently. The odour given off during cure is due to the liberation of acetic acid. It will disappear when the cure is complete.

For information on appropriate dispensing equipment for your application, please contact Dow Corning.

### Working and cure time

On exposure to moisture in the air, the surface of DOW CORNING 734 RTV Adhesive/Sealant will "skin over" in about 10 minutes at room temperature with 50% relative humidity. Any tooling should be completed before this "skin" forms. The surface is easily tooled with a spatula. The adhesive will be tack-free in less than 60 minutes.

Curing continues inward from the surface. In 24 hours (at room temperature and 50% relative humidity), DOW CORNING 734 RTV Adhesive/Sealant will cure to a depth of 3mm. Deep sections take several weeks for a complete cure.

Cure time is extended at lower humidity levels. This effect becomes pronounced below 20% relative humidity. If both bonded substrates are impermeable to moisture, as in the case of two metal plates, cure time will depend upon the thickness of the adhesive and the area under the joint. For best results, the bonded surfaces should not overlap by more than 25mm.

### Compatibility

DOW CORNING 734 RTV Adhesive/Sealant releases a small amount of acetic acid during curing. This may cause corrosion on some delicate electronic equipment, especially in direct contact. Users are advised to check compatibility before use.

### HANDLING PRECAUTIONS

A Product Safety Data Sheet should be obtained from your nearest Dow Corning sales office prior to use.

ATTENTION: Before handling, read product information, Product Safety Data Sheets and container labels for safe use, and any physical and/or health hazard information.

Dow Corning neither recommends nor has tested this material for medical or for pharmaceutical end use. Not for human injection.

### USABLE LIFE AND STORAGE

When stored at or below 32°C in the original unopened containers DOW CORNING 734 RTV Adhesive/Sealant has a usable life of 24 months from the date of production.

Dow Corning will guarantee the usable life of DOW CORNING 734 RTV Adhesive/Sealant until the date indicated on the packaging. This date is shown by the letters "EXP" (meaning Expiry) followed by 4 digits, which stand for the month (last day) and year. Example: "EXP 03/99" means use by 31 March 1999.

As DOW CORNING 734 RTV Adhesive/Sealant cures by reaction with moisture in air, keep the container tightly sealed when not in use. A plug of used material may form in the tip of a tube or cartridge during storage. This is easily removed and does not affect the remaining contents.

### PACKAGING INFORMATION

DOW CORNING 734 RTV Adhesive/Sealant is available in 90ml tubes, 310ml cartridges and 20 litre pails.

### HEALTH AND ENVIRONMENTAL INFORMATION

Dow Corning has a dedicated team of toxicologists as well as environmental and regulatory affairs specialists located at its European Head Office in Brussels. Dow Corning's Health, Environment and Regulatory Affairs (HERA) Department is available to guide Dow Corning and support its customers in the safe manufacture, distribution, handling and use of its products. If you require further information on specific Dow Corning products, please contact this group at:

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The information herein is offered in good faith based on Dow Corning's research and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information shall not be used as a substitute for preliminary tests which are essential to ensure that our products are fully satisfactory for your specific application before using them in a full scale production. Therefore, unless Dow Corning provides you with a specific written warranty of fitness for use, Dow Corning's sole warranty is that the products will meet Dow Corning's then current sales specifications. Dow Corning specifically disclaims any other express or implied warranty and your exclusive remedy and Dow Corning's sole liability for breach of warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted; Dow Corning expressly disclaims any liability for incidental or consequential damages. Suggestions of use should not be taken as inducements to infringe any patent.

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