

# Silcoat 7031

## Silicone Sealing and Conforaml Coating Compound

Typical Properties			
Property	Unit	Value	Test Method
Color / Component		Semi Transparent	Visual
Density	Gram /cc	1.0	ASTM D792
Viscosity (25°C)	cps	6,000	ASTM D2196
Cure Time @ 125°C	Min	15	UATM
Cure Time @ 105°C	Min	60	UATM
Shelf Life at 4°C	Month	> 3	Viscosity double
Weight loss in cure	Weight %	< 0.3%	TGA
Property as Cured			
Color		Transparent	Visual
Hardness	Shore A	35	ASTM D2240
Tensile Strength	Mpa	2.5	ASTM D638
Elongation	%	60	ASTM D638
Peel Adhesion (over Al plate @25C)	lb / inch	> 3	UATM
Dielectric Constant	@100 Hz	3.2	ASTM D150
Dissipation Factor	@100 Hz	< 0.01	ASTM D150
Dielectric Strength	Volt/mil AC	> 450	ASTM D149
Volume Resistivity	Ohm-cm	> 10E+14	ASTM D257
Tg	°C	-120	TGA
Useful Temperature Range	°C	-55 to 200	TGA

These figures are only intended as a guide and should not be used in preparing specifications.  
 UATM – United Adhesives' Test Method

### Processing Instruction

**Important!** Silcoat 7031 is a platinum catalyzed cure system. Please keep applied surface clean and avoid using this material directly on any surface that contains sulfur, amine, phosphorous, organo-metals, acid, etc. because these contaminants could inhibit the cure the material. To reach best results, the coating surface needs to be clean and free of oil, grease, lubricants, soaps, dust, mold release agents, etc. We recommend running preliminary tests to optimize conditions for the particular application.

### Storage

Silcoat 7031 has a shelf life of at least 3 months when stored in refrigerator (< 4°C) in the originally sealed container. Storage beyond the date specified does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

### Safety information

General hygiene regulations should be observed. Comprehensive instructions are given in the corresponding Material Safety Data Sheets that are available on request from United Adhesives, Inc.

### Characteristics

Silcoat 7031 is a conformal coating compound for electronic sealing and protective applications. It is a one-component, solvent-free silicone. After it is cured at elevated temperature, it forms a flexible rubbery layer with excellent adhesion to most substrates, which provides protection for electronic devices. It is non-corrosive and self-priming adhesion, and can be automated to dispense or spray.

### Special Features and Benefits

- Conformal coating capability
- Fast cure at elevated temperature
- Solvent free (100% solid)
- Bond to various substrates
- Strong media resistance
- Flexible over -40°C to 180°C
- Excellent dielectric property
- Low thermal stress

### Typical Applications

- Protection of electronic components / devices
- For harsh environment applications
- Water resistant coating
- Automotive electronics
- Semiconductor and Telecommunications
- Low thermal stress coating

The data presented in this leaflet are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose. For technical, quality, or product safety questions, please contact directly to United Adhesives Inc.