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RTV SILICONE ELASTOMERS | ADHESIVES FOR BONDING AND SEALING

PRODUCT SELECTION GUIDE



RTV SILICONE ELASTOMERS | ADHESIVES FOR BONDING AND SEALING

| Product | Properties | Color | Density [g/cm ³] | Mixed Viscosity [mPa s] | Mixing Ratio | Pot Life | Skin Formation Time | Curing Time | Hardness | Tensile Strength DIN 53505 S1 [MPa] | Elongation at Break DIN 53504 S1 [%] | Tear Strength ASTM 624 B [N/mm] | Thermal Conductivity [W/m K] |
|--|---|-------------|------------------------------|-------------------------|---------------------|------------------------------------|------------------------|---|----------|-------------------------------------|--------------------------------------|---------------------------------|------------------------------|
| 1-Component Condensation-Curing | | | | | | | | | | | | | |
| ELASTOSIL® E951 | Acetic-curing; high strength; excellent adhesion to silicone and metals | Translucent | 1.12 | 400,000 | 1-part | N/A | 20 min 23 °C/50% RH | 24 hrs/mm 23 °C/50% RH | 30 Sh A | 4.5 | 400 | 12.3 | 0.2 |
| ELASTOSIL® N189 | Oxime-curing; oil & antifreeze resistant; excellent heat resistance | Black | 1.1 | Non-slump | 1-part | N/A | 25 min 23 °C/50% RH | 24 hrs/mm 23 °C/50% RH | 32 Sh A | 2.0 | 250 | 7.0 | 0.2 |
| ELASTOSIL® N198 | Oxime-curing; excellent heat resistance | Grey | 1.24 | Non-slump | 1-part | N/A | 25 min 23 °C/50% RH | 24 hrs/mm 23 °C/50% RH | 43 Sh A | 4.5 | 300 | 9.0 | 0.2 |
| ELASTOSIL® N2197 | Alkoxy-curing (neutral); excellent adhesion to many substrates including polycarbonate; high heat resistance; UL 94 V-0 | Grey | 1.26 | Non-slump | 1-part | N/A | 20 min 23 °C/50% RH | 24 hrs/mm 23 °C/50% RH | 35 Sh A | 2.5 | 300 | 6.0 | 0.2 |
| ELASTOSIL® N2199 | Alkoxy-curing (neutral); general purpose adhesive; very good adhesion to polycarbonate; fast skin-over time | Translucent | 1.03 | Non-slump | 1-part | N/A | 20 min 23 °C/50% RH | 24 hrs/mm 23 °C/50% RH | 40 Sh A | 2.5 | 350 | 7.0 | 0.2 |
| ELASTOSIL® N9111 | Alkoxy-curing (tin-free); compatible with platinum-cure silicones; high strength | Black | 1.30 | Non-slump | 1-part | N/A | 25 min 23 °C/50% RH | 12 hrs/mm 23 °C/50% RH | 30 Sh A | 2.2 | 500 | 10.0 | 0.2 |
| 2-Component Condensation-Curing⁽¹⁾ | | | | | | | | | | | | | |
| ELASTOSIL® RT772 | Rapid-curing at room temperature; excellent adhesion to many substrates; flowable; UL 94 HB | Black | 1.3 | 30,000 | 10:1 ⁽¹⁾ | 12 min | 15 min 23 °C/50% RH | 2 hrs/23 °C | 35 Sh A | 2.1 | 250 | 4.0 | 0.2 |
| ELASTOSIL® RT774 | Rapid-curing at room temperature; general-purpose adhesive with excellent adhesion to many substrates | Black | 1.37 | Non-slump | 10:1 ⁽¹⁾ | 12 min | 15 min 23 °C/50% RH | 2 hrs/23 °C | 38 Sh A | 2.1 | 300 | 7.0 | 0.2 |
| 2-Component Variable Curing System (Batch Kit System⁽²⁾) | | | | | | | | | | | | | |
| SEMICOSIL® 811 | High flexibility/low stress adhesive designed for oven-free curing (Note: adhesion in 24 hrs at room temperature or can be accelerated with heat) | Translucent | 1.08 | Non-slump | 10:1 ⁽²⁾ | 45 min* 30 min** > 24 hrs*** | N/A | 4 hrs/23 °C* 10 min/100 °C* 20 min/23 °C** 5 min/100 °C** 24 hrs/23 °C*** | 30 Sh A | 3.3 | 330 | 8.0 | 0.2 |

2-Component Addition-Curing

| | | | | | | | | | | | | | |
|------------------|--|------|-----|-----------|-----|-------|-----|---------------|---------|-----|-----|------|-----|
| ELASTOSIL® RT720 | Low-temperature cure; flowable; very good mechanical properties | Grey | 1.1 | 35,000 | 1:1 | 6 hrs | N/A | 30 min/100 °C | 40 Sh A | 6.0 | 300 | 7.0 | 0.2 |
| ELASTOSIL® RT722 | Low-temperature cure; non-slump; very good mechanical properties | Grey | 1.1 | Non-slump | 1:1 | 8 hrs | N/A | 30 min/100 °C | 45 Sh A | 6.0 | 300 | 10.0 | 0.2 |
| ELASTOSIL® RT725 | Low-temperature cure; non-slump; improved adhesion | Grey | 1.1 | Non-slump | 1:1 | 6 hrs | N/A | 30 min/100 °C | 40 Sh A | 6.0 | 300 | 10.0 | 0.2 |

1-Component Addition-Curing

| | | | | | | | | | | | | | |
|---------------------|---|---------------------|------|-----------|--------|----------|-----|-------------------------------|---------|-----|-----|------|-----|
| ELASTOSIL® RT 705 F | Very good heat resistance; flowable; fast curing at elevated temperatures | Black | 1.23 | 30,000 | 1-part | 270 days | N/A | 20 min/140 °C 3 min/200 °C | 36 Sh A | 3.5 | 220 | 6.0 | 0.2 |
| SEMICOSIL® 983 | Exhaust gas media resistance; high hardness; limited flowability | Beige | 1.38 | 180,000 | 1-part | 180 days | N/A | 30 min/150 °C | 70 Sh A | 6.0 | 150 | 6.0 | 0.2 |
| SEMICOSIL® 986 | High flexibility/low stress adhesive; UV-tracer; high shear thinning; medium hardness | Translucent | 1.07 | Non-slump | 1-part | 300 days | N/A | 1 hr/130 °C 10 min/150 °C | 51 Sh A | 5.0 | 200 | 10.0 | 0.2 |
| SEMICOSIL® 987 GR | High flexibility/low stress adhesive; high shear thinning; medium hardness | Grey | 1.1 | Non-slump | 1-part | 300 days | N/A | 1 hr/130 °C 10 min/150 °C | 50 Sh A | 5.0 | 200 | 10.0 | 0.2 |
| SEMICOSIL® 988 | High flexibility/low stress adhesive; ideal for CIPG applications; medium hardness | Translucent or Grey | 1.1 | Non-slump | 1-part | 180 days | N/A | 1 hr/130 °C 10 min/150 °C | 35 Sh A | 4.5 | 350 | 10.0 | 0.2 |
| SEMICOSIL® 989 | High flexibility/low stress adhesive with higher modulus; medium hardness | Translucent | 1.1 | Non-slump | 1-part | 300 days | N/A | 1 hr/130 °C 10 min/150 °C | 55 Sh A | 5.0 | 200 | 10.0 | 0.2 |

These figures are intended as a guide and should not be used in preparing product specifications.

Refer to "Solutions for the Semiconductor and Power Electronics Industries" and "Silicone Gel Solutions" brochures for additional information.

⁽¹⁾ WACKER Catalyst T77 is used with 2-component condensation curing systems.

⁽²⁾ Product used as Batch Kit System with:

* ELASTOSIL® CAT PT

** ELASTOSIL® CAT PT-F

*** ELASTOSIL® CAT UV

Sh A = Shore A

Sh 00 = Shore 00

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