

OPTOELECTRONICS & ELECTRONICS



PRODUCT GUIDE

POTTING & ENCAPSULATING GELS



POTTING & ENCAPSULATING GELS

| TYPICAL USES | RECOMMENDED NUSIL PRODUCTS | PRODUCT DESCRIPTION (MIX RATIO, CURE SYSTEM, TYPE) | HARDNESS (TYPE A DUROMETER) (*mm PENETRATION) | RHEOLOGY (VISCOSITY, cP) (FLOW, in/5 min) (EXTRUSION RATE, g/min) | PRODUCT ATTRIBUTES |
|--|----------------------------|---|--|--|---|
| HIGH DIELECTRIC STRENGTH GELS: – SENSORS – INVERTERS – UNDERFILL – GENERAL SOFT GELS FOR LOW MODULUS | GEL1-8155 | 1:1, PLATINUM, SOFT LOW TACK GEL | 0.4 mm | 14,500 cP | Viscosity increases – 1.5X in 24 hrs. (¼" diameter foot, 1.5 seconds). |
| | GEL-8150 | 1:1, PLATINUM, SOFT HIGH TACK GEL | 5 mm | 500 cP | Pot life 4 hrs. (* 5 seconds). |
| | GEL8-8150 | 1:1, PLATINUM, SOFT HIGH TACK GEL | 5 mm | 500 cP | Pot life 1.5 hrs. and cures at RT (* 5 seconds). |
| | GEL-8170 | 1:1, PLATINUM, SOFT HIGH TACK GEL | 9 mm | 900 cP | Max viscosity after 6 hrs. is 2,000 cP (* 5 seconds) . |
| | GEL-8250 | 1:1, PLATINUM, SOFT MED TACK GEL | 5 mm | 650 cP | For applications requiring a broader operating temperature range, 2hr pot life (* 5 seconds). |
| LOW OUTGASSING & LOW VOLATILITY GELS: – MEMs – POTTING FOR LASERS & POWER ELECTRONICS – HERMETIC OR NEAR HERMETIC PACKAGES | EPM-2480 | 1:1, PLATINUM, SOFT HIGH TACK GEL | 4 mm | 2,500 cP | Pot life is > 30 hrs. (6.35 mm diameter, * 5 seconds). |
| | LS-3140 | 1:1, PLATINUM, SOFT MED TACK GEL | 0.4 mm | A: 16,500 cP B: 8,500 cP | Low volatility, 24 hr. minimum potlife based on 2X initial viscosity (¼" diameter, * 5 seconds). |
| | EPM-2482 | 1:1, PLATINUM, SOFT HIGH TACK GEL | 3 mm | 1,800 cP | Used in high power electronics, lower permeability than PDMS, for applications requiring a broader operating temperature range (6.35 mm diameter, * 5 seconds). 30 hr. minimum potlife based on 2X initial viscosity. |
| OPTICALLY CLEAR GELS: – LCD BONDING – CHIP ENCAPSULATION – PHOSPHOR COATINGS – REFRACTIVE INDEX MATCHING | LS-3238 | 1:1, PLATINUM, GEL | 3 mm | 1,800 cP | 1.38 RI, Resistant to hydrocarbon solvents. Index matches Magnesium Fluoride. Potlife based on 3,000 cPs maximum mixed viscosity after 6 hrs. |
| | LS-3441 | 1:1, PLATINUM, SOFT LOW TACK GEL | 0.4 mm | 14,500 cP | Tough gel and 24 hr. minimum potlife based on 2X initial viscosity (¼" diameter, * 5 seconds). |
| | LS-3443 | 1:1, PLATINUM, SOFT HIGH TACK GEL | 5 mm | 650 cP | 1.43 RI, recommended as an optically robust alterte to index match to 1.46 substrates; will LTV (* 5 seconds). 2hr. minimum potlife based on 2X initial viscosity. |
| | LS-3246 | 1:1, PLATINUM, FIRM GEL | 10 '00' | 1,000 cP | Index Matches 1.46 RI such as fused silica. Will RTV within 24 hrs. 5 hr. minimum potlife based on 2X initial viscosity. |
| | LS-3249 | 1:1, PLATINUM, FIRM GEL | 60 '000' | 400 cP | Index Matches 1.49 RI materials such as acrylates (PMMA). Will RTV in 48 hrs. |
| | LS-3252 | 1:1, PLATINUM, FIRM GEL | 10 '00' | 425 cP | Index Matches 1.52 RI materials such as borosilicate glass (BK7). Will RTV in 24 hrs. |
| | LS-3351 | 1:1, PLATINUM, FIRM GEL | 55 '000' | 6,000 cP | Excellent phosphor chip coating and general high refractive index encapsulant. |
| | LSX-3354 Series | 1:1, PLATINUM, FIRM GEL | 15 '00'/55 '000' | 5,000 cP | Available in a variety of working times where LS2-3354 and LS3-3354 contain adhesion promoters. Excellent for phosphor coatings. |
| SOLVENT & FUEL RESISTANT GELS: – FUEL SENSORS – UNDERFILL | GEL-3500 | 1:1, PLATINUM, FIRM FLUORO GEL | 50 '00' | A: 12,000 cP B: 10,500 cP | 50% M fluoro. Recommended for short term exposure to fuels and solvent. 12 hrs. pot life. |
| | FS-3502-1 | 1:1, PLATINUM, FIRM FLUORO GEL | 10 '00' | A: 12,000 cP B: 4,500 cP | 100% M fluoro recommended for long term solvent / fuel exposure. 6,000 cP maximum mixed viscosity after 3 hrs. |

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POTTING & ENCAPSULATING ELASTOMERS



POTTING & ENCAPSULATING ELASTOMERS

| TYPICAL USES | RECOMMENDED NUSIL PRODUCTS | PRODUCT DESCRIPTION (MIX RATIO, CURE SYSTEM, TYPE) | HARDNESS (TYPE A DUROMETER) [*mm PENETRATION] | RHEOLOGY (VISCOSITY, cP) (FLOW, in/5 min) (EXTRUSION RATE, g/min) | TENSILE psi (mpa) | % ELONGATION | PRODUCT ATTRIBUTES |
|--|----------------------------|---|--|--|-------------------|--------------|--|
| OPTICALLY CLEAR ELASTOMERS FOR HARSH ENVIRONMENTS: - SOLAR MODULE ASSEMBLY - LED ENCAPSULANT | LS2-6941 | 1:1, PLATINUM, ICE ELASTOMER | 30 | A: 1,200 cP B: 800 cP | 120 (0.83) | 100 | 1.41 Refractive Index. General use RTV clear adhesive. |
| | LS-6941 | 10:1, PLATINUM, ICE ELASTOMER | 50 | 5,300 cP | 1,300 (9) | 95 | 1.41 Refractive Index. General use RTV clear adhesive. |
| | LS-6140 | 1:1, PLATINUM, ICE ELASTOMER | 50 | A: 3,700 cP B: 2,550 cP | 850 (5.9) | 90 | 1.41 Refractive Index. Low volatility, 3 hr. pot life and will RTV. |
| | LS1-6140 | 1:1, PLATINUM, ICE ELASTOMER | 50 | 3,200 cP | 900 (6.2) | 90 | 1.41 Refractive Index. Low volatility and requires heat to cure. Long pot life for dispensing. |
| | LS2-6140 | 1:1, PLATINUM, ICE ELASTOMER | 50 | 2,700 cP | 1,130 psi (7.2) | 150 | 1.41 Refractive Index. Low volatility with primerless adhesion. Requires heat to cure and long pot life for dispensing or casting. Tested per UL94 and passed VO. |
| ENCAPSULATING ELECTRONIC COMPONENTS: - CHIP COATINGS - GENERAL ENVIRONMENTAL PROTECTION | R-2614 | 10:1, PLATINUM, ICE ELASTOMER | 50 | A: 5,500 cP B: 100 cP | 1,240 | 115 | Pourable and self-leveling, general use RTV clear potting compound. Tested per UL-94 and passed VO. |
| | R-2615 | 10:1, PLATINUM, ICE ELASTOMER | 50 | 5,300 cP | 1,300 (9) | 100 | Self leveling, low temperature cure, versatile encapsulant. |
| | R21-2615 | 1:1, PLATINUM, ICE ELASTOMER | 75 | A: 30,000 cP B: 20,000 cP | 1,200 (8.3) | 65 | Hard clear elastomer with 2 hr. pot life and LTV cure. |
| | R-2655 | 10:1, PLATINUM, ICE ELASTOMER | 40 | 5,400 cP | 900 (6.2) | 120 | For applications requiring a broader operating temperature range. |
| HIGH DIELECTRIC STRENGTH ELASTOMERS: - POWER ELECTRONICS - INVERTERS AND DRIVERS - RELAYS - GENERAL TOUGH ELASTOMERS | R-2188 | 1:1, PLATINUM, ICE ELASTOMER | 20 | A: 13,500 cP B: 9,000 cP | 475 (3.3) | 350 | Excellent dielectric properties, flexible cure with 14 hr. pot life. Tested per UL 94 and passed V1. |
| | CF19-2186 | 1:1, PLATINUM, ICE ELASTOMER | 25 | A: 85,000 cP B: 65,000 cP | 1,100 (7.6) | 600 | Dielectric properties are excellent for actuators and other applications where dielectric properties are critical. |
| | R-2175 | 1:1, PLATINUM, ICE ELASTOMER | 50 | A: 2,500 cP B: 1,500 cP | 525 (3.5) | 130 | 0.4 W/mK, pourable, heat resistant, tested per UL94 and passed VO. Will RTV. Fast cure version available (R1-2175). |
| | R-2165 | 100:0.5, ALKOXY, RTV ELASTOMER | 60 | A: 5,400 cP B: 3,400 cP | 500 (3.4) | 100 | 0.6 W/mK, versatile, moderate thermally conductive silicone. Will RTV. Fast cure version available (R1-2165). |
| | R-2550 | 100:0.5, ALKOXY, RTV ELASTOMER | 35 | 9,000 cP | 500 (3.5) | 175 | Resists breakdown at high temperatures. Translucent and 1 hr. pot life. Not recommended for deep section cures. |
| | R-2560 | 10:1, PLATINUM, FLUORO ELASTOMER | 55 | 31,000 cP | 700 (4.8) | 125 | Resists breakdown at high temperatures. Red and 1 hr. pot life. Not recommended for deep section cures. |
| SOLVENT & FUEL RESISTANT | CF1-3510 | 10:1, PLATINUM, FLUORO ELASTOMER | 20 | A: 70,000 cP | 185 (1.2) | 135 | 100% Fluorosilicone, flowable mixed viscosity, and 7 hr. pot life. |
| HARD RESIN FOR POTTING ELECTRONICS & FIBER OPTICS | CF2-4721 | 1 PART, PEROXIDE, HARD RESIN | 75 TYPE D | 130 cP | - | - | Contains vinyl-specific peroxide in 1.52 RI resin. Requires heat to cure and oxygen inhibited. Not recommended for general encapsulation. Uncatalyzed version available (CF-4721). |

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FOAMS, GASKETS, MOLDING ELASTOMERS & MARKING INKS

FOAMS

| TYPICAL USES | RECOMMENDED NUSIL PRODUCTS | PRODUCT DESCRIPTION (MIX RATIO, CURE SYSTEM, TYPE) | DENSITY (LB./FT ³ (G/CM ³)) | RHEOLOGY (VISCOSITY, cP) (FLOW, in/5 min) (EXTRUSION RATE, g/min) | PRODUCT ATTRIBUTES |
|---|----------------------------|---|--|--|--|
| SYNTACTIC | | | | | |
| FUEL RESISTANT: - GAP FILLING - GASKETS | CF1-3710-2 | 1:1, PLATINUM, FLUORO FOAM | 50 (0.80) | 1 g/min (200 mL SXS KIT) | Cure in place fuel resistant foam for short term fuel exposure. Application life 10 minutes. |
| OPEN & CLOSED CELL | | | | | |
| LIGHT WEIGHT INSULATION - CASTED/MOLDED GASKETS - VIBRATION DAMPENING FOR SENSORS, PCB BOARDS, ETC. | CV-2391 | 10:1, PLATINUM, FOAM | 14 (0.22) | 3,000 cP | Cure in place versatile low outgassing foam. Application life 6 minutes. |
| | SFM5-2350 | 1:1, PLATINUM, FOAM | 25 (0.40) | 50,000 cP | Cure in place versatile tough foam. Application life 6 minutes. |
| | R-2360 | 1:1, PLATINUM, FOAM | 12 (0.19) | 40,000 cP | Flexible cure in place low density foam. Application life 2 minutes. |

MOLDING ELASTOMERS

| TYPICAL USES | RECOMMENDED NUSIL PRODUCTS | PRODUCT DESCRIPTION (MIX RATIO, CURE SYSTEM, TYPE) | HARDNESS (TYPE A DUROMETER) | RHEOLOGY (VISCOSITY, cP) (FLOW, in/5 min) (EXTRUSION RATE, g/min) | TENSILE psi (mpA) | % ELONGATION | PRODUCT ATTRIBUTES |
|--------------------------|----------------------------|---|-----------------------------|--|-------------------|--------------|--|
| OPTICAL COMPONENTS | LS1-6941 | 1:1, PLATINUM, LCE ELASTOMER | 50 | A: 75,000 cP B: 50,000 cP | 750 (5.2) | 305 | Versatile and tough 1.41 RI clear elastomer. Work time is >24 hrs. and requires heat to cure. |
| | LS-8941 | 1:1, PLATINUM, LCE ELASTOMER | 80 | 21,500 cP | 1,250 (8.6) | 65 | Hard and flexible 1.40 RI elastomer. Can be casted and liquid injection molded. Requires heat to cure. Recommend SP-120 or SP-201 for overmolding. |
| SOLVENT & FUEL RESISTANT | CF3-3521 | 1:1, PLATINUM, LCE FLUORO ELASTOMER | 30 | THRIXOTROPIC & EXTRUDABLE | 700 (4.8) | 360 | Recommend for short term fuel or solvent exposure. |
| | FS-3511 | 1:1, PLATINUM, LSR FLUORO ELASTOMER | 40 | THRIXOTROPIC & EXTRUDABLE | 1,150 (7.9) | 335 | 100%M fluoro for long term fuel or solvent exposure. Can be liquid injection molded and requires heat to cure. |
| | FS-3781 | 1 PART, PEROXIDE, HCR FLUORO ELASTOMER | 30 | NON-FLOWING | 850 (5.9) | 300 | Recommend for long term fuel and solvent exposure. Can be compression molded and requires heat to cure. High tear. |

REMOVABLE CURE IN-PLACE GASKETS

| TYPICAL USES | RECOMMENDED NUSIL PRODUCTS | PRODUCT DESCRIPTION (MIX RATIO, CURE SYSTEM, TYPE) | HARDNESS (TYPE A DUROMETER) | RHEOLOGY (VISCOSITY, cP) (FLOW, in/5 min) (EXTRUSION RATE, g/min) | TENSILE psi (mpA) | % ELONGATION | PRODUCT ATTRIBUTES |
|--------------|----------------------------|---|-----------------------------|--|-------------------|--------------|---|
| - | EPM-2412 | 1:1 | 30 | THRIXOTROPIC & EXTRUDABLE | 850 (5.8) | 450 | Applications that require non-slumping material. Cures quickly to form gasket in device & can be easily removed to reduce rework time. Has consistent aspect ratio and black version available. |

SILICONE MARKING INKS

| TYPICAL USES | RECOMMENDED NUSIL PRODUCTS | PRODUCT DESCRIPTION (MIX RATIO, CURE SYSTEM, TYPE) | HARDNESS (TYPE A DUROMETER) (*mm PENETRATION) | RHEOLOGY (VISCOSITY, cP) (FLOW, in/5 min) (EXTRUSION RATE, g/min) | PRODUCT ATTRIBUTES |
|--|----------------------------|---|--|--|--|
| SCREEN OR PAD PRINTING: - RECOMMENDED FOR PRINTING ONTO SILICONE - EXCELLENT FOR HARSH ENVIRONMENTS | R-1008 SERIES | 1 PART, OXIME, RTV, INK DISPERSION, XYLENE | 1,000 - 1,500 cP | 70 | Available in clear (R-1008-0), white (R-1008-1), black (R-1008-2), red (R-1008-3), orange (R-1008-4), yellow (R-1008-5), green (R-1008-6), blue (R-1008-7), and violet (R-1008-8). |
| SCREEN OR PAD PRINTING (HEAT RESISTANT): - RECOMMENDED FOR PRINTING ONTO SILICONE - EXCELLENT FOR HARSH ENVIRONMENTS | R-2100 SERIES | 1:1, PLATINUM, INK DISPERSION, XYLENE | <2,000 cP | 58-62 | Available in white (R-2100-1), black (R-2100-2), red (R-2100-3), and green (R-2100-6). Dispersed in xylene. |



COATINGS & LUBRICANTS

COATINGS

| TYPICAL USES | RECOMMENDED NUSIL PRODUCTS | PRODUCT DESCRIPTION (MIX RATIO, CURE SYSTEM, TYPE) | HARDNESS | RHEOLOGY (VISCOSITY, cP) (FLOW, in/5 min) (EXTRUSION RATE, g/min) | TENSILE psi (mpA) | % ELONGATION | PRODUCT ATTRIBUTES |
|---|----------------------------|---|----------|--|-------------------|--------------|---|
| DISPERSION | | | | | | | |
| ICE RELEASE & GENERAL ALL PURPOSE COATING: - INCREASES DURABILITY - ENVIRONMENTAL PROTECTANT | R-1082 | 1 PART, ACETOXY, RTV DISPERSION, XYLENE | 25 | 700 cP | 1425 (9.8) | 950 | Great adhesion to a variety of substrates. Not recommended where corrosion is of concern. |
| | R-3930 | 1 PART, ACETOXY, RTV DISPERSION, TERT BUTYL ACETATE | 30 | 735 cP | 750 (5.2) | 400 | 100%M Fluoro, fuel and hydrocarbon solvent resistant, high strength coating. Not recommended where corrosion is of concern. |
| ICE RELEASE & GENERAL ALL PURPOSE COATING: - COATING FOR ELECTRONICS - INCREASES DURABILITY - ENVIRONMENTAL PROTECTANT | R-2180 | 1:1, PLATINUM, DISPERSION, XYLENE | 40 | 3,075 cP | 1700 (11.7) | 1050 | High strength coating and primer is recommended to increase adhesion. Requires heat to cure. |
| | R-1009 | 1 PART, OXIME, RTV DISPERSION, NAPHTHA | 45 | 6,150 cP | 1150 (7.9) | 650 | High strength coating recommend for coating PCBs and other electronic assemblies. |
| SOLVENTLESS | | | | | | | |
| CONFORMAL COATING FOR ELECTRONICS | EPM-2420 | 1:1, PLATINUM, LCE ELASTOMER | 30 | 2,600 cP | 425 (2.9) | 150 | 100% M fluoro for long term fuel or solvent exposure. Can be liquid injection molded and requires heat to cure. |
| | CF19-2615 | 1:1, PLATINUM, RTV ELASTOMER | 30 | 1,300 cP | 120 (0.9) | 100 | 100% M fluoro for long term fuel or solvent exposure. Can be liquid injection molded and requires heat to cure. |
| LOW OUTGASSNG GENERAL ADHESIVE | CV4-2500 | 1:1, PLATINUM, RTV ADHESIVE | 25 | 1,500 cP | - | - | 100% M fluoro for long term fuel or solvent exposure. Can be liquid injection molded and requires heat to cure. |
| | CV-1152 | 1 PART, OXIME, RTV ELASTOMER | - | 7,300 cP | - | - | 100% M fluoro for long term fuel or solvent exposure. Can be liquid injection molded and requires heat to cure. |
| | CV1-1142 | 1 PART, OXIME, RTV ADHESIVE | 30 | 13,000 cP | 400 (2.8) | 200 | 100% M fluoro for long term fuel or solvent exposure. Can be liquid injection molded and requires heat to cure. |
| SPECIALTY | | | | | | | |
| REDUCE TACKINESS ON SILICONE GASKETS, TUBES & SILICONE MATERIAL | R-2182 | 1:1, PLATINUM, HTV DISPERSION, XYLENE | - | - | - | - | 100% M fluoro for long term fuel or solvent exposure. Can be liquid injection molded and requires heat to cure. |
| | R-1182 | 1 PART, ACETOXY, RTV DISPERSION, TERT BUTYL ACETATE | - | - | - | - | 100% M fluoro for long term fuel or solvent exposure. Can be liquid injection molded and requires heat to cure. |

LUBRICANTS

| TYPICAL USES | RECOMMENDED NUSIL PRODUCTS | PRODUCT DESCRIPTION (MIX RATIO, CURE SYSTEM, TYPE) | RHEOLOGY (VISCOSITY, cP) (FLOW, in/5 min) (EXTRUSION RATE, g/min) | PRODUCT ATTRIBUTES |
|--|----------------------------|---|--|--|
| GREASES | | | | |
| REDUCE FRICTION ON GLASS FITTINGS, METALS & CERAMICS | G-9010 | - | 1,100,00 cP | A stiff methyl silicone/Teflon® grease. 0.2% Weight loss. For high vacuum and pressure systems. |
| | G-9020 | - | MEDIUM GREASE | A medium consistency methyl silicone grease, 0.3% Weight Loss, for high vacuum and pressure systems. |
| | G-9030 | - | 980,000 cP | A stiff methyl grease used for lubricating . 0.3% Weight loss. For high vacuum and pressure systems. |
| NON-FUNCTIONAL FLUIDS | | | | |
| REDUCE FRICTION ON PLASTICS, RUBBER, METALS & TEXTILES | S-7200 | - | 350 cP, 1,000 cP, 12,500 cP | 100% Dimethylsiloxane non-reactive polymer. Custom viscosities available. |
| | S-7400 | - | 400 cP & 1,000 cP | Recommend for extreme temperature (-100°C to 250°C). Higher and custom viscosities available. |
| FLUORO FUNCTIONAL LUBRICANTS: - LUBRICATING PDMS SILICONE - RESISTS BREAK DOWN WHEN EXPOSED TO FUELS OR SOLVENTS | FS-3600 | - | 350 cP, 1,000 cP, 12,500 cP | 100% Fluoro polymer. |
| | FS-3606 | - | 350 cP, 1,000 cP, 12,500 cP | 60% Fluoro polymer. |



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ELECTRICALLY & THERMALLY CONDUCTIVE ADHESIVES, SEALANTS & GREASES

ELECTRICALLY CONDUCTIVE ADHESIVES/SEALANTS

| TYPICAL USES | RECOMMENDED NUSIL PRODUCTS | PRODUCT DESCRIPTION (MIX RATIO, CURE SYSTEM, TYPE) | DUROMETER (TYPE A) | RHEOLOGY (VISCOSITY, cP) (FLOW, in/5 min) (EXTRUSION RATE, g/min) | TENSILE psi (mpA) | % ELONGATION | PRODUCT ATTRIBUTES |
|---|----------------------------|---|--------------------|---|-------------------|--------------|---|
| STATIC DISCHARGE - PRIMERLESS | CV-1500 | 1 PART, OXIME, RTV ADHESIVE | 80 | THRIXOTROPIC & EXTRUDABLE | 650 (4.5) | 20 | Carbon filled, 3 ohm-cm, versatile adhesive. Tack Free in 10 minutes. |
| STATIC DISCHARGE -LOW VOLATILITY & LOW OUTGASSING: - MEMS - HERMETIC & NEAR HERMETIC PACKAGES | CV1-2640 | 10:1, PLATINUM, CONDUCTIVE ELASTOMER | 40 | 300 g/min | 525 (3.6) | 225 | Carbon filled, 25 ohm-cm. Cures 4hrs at 65°C. |
| | CV3-2640 | 1:1, PLATINUM, CONDUCTIVE ELASTOMER | 25 | 10,000 cP | 70 (0.48) | 120 | Carbon filled, 2.2 x 10exp6 ohm-cm. Designed for broad operating temperature. |
| | EPM-2461 | 1:1, PLATINUM, CONDUCTIVE ELASTOMER | 30 | A: 1,250,000 cP B: A: 100,000 cP | 500 (3.4) | 350 | Carbon filled, 500 ohm-cm, 1 hr. pot life. |
| STATIC DISCHARGE: - GASKETS - ENCAPSULANTS | R-2630 | 10:1, PLATINUM, CONDUCTIVE ELASTOMER | 60 | SELF LEVELING | 700 (4.8) | 95 | Carbon filled, 7 ohm-cm. 15 hr. pot life. |
| | R-2631 | 1:1, PLATINUM, CONDUCTIVE ELASTOMER | 45 | 100 g/min | 300 (2.0) min | 125 min | Carbon filled, 70 ohm-cm. 30 minute cure time. |
| EMI SHIELDING ELECTRICAL GROUND | R-2637 | 20:1, PLATINUM, CONDUCTIVE ELASTOMER | 60 | SMOOTH PASTE | 210 (2.1) | 275 | 0.006 ohm-cm, 4 hr. pot life, can be screen printed. |
| | R-2634 | 100:0.5, ALKOXY, RTV CONDUCTIVE ADHESIVE | 80 | 160 g/min | 250 (1.7) | 90 | 0.001 ohm-cm, 3 hr. pot life, 200 psi lap shear primed w/SP-121. Conductive at elevated temperatures. |
| DIE ATTACH EMI SHIELDING | CV2-2646 | 100:0.5, ALKOXY, RTV CONDUCTIVE ADHESIVE | 75 | 4 in/5min | 300 (2.1) | 70 | 0.003 ohm-cm at 200 C°, 2 hr. pot life. |
| | EPM-2462 | 20:1, PLATINUM, CONDUCTIVE ELASTOMER | 85 | SMOOTH PASTE | 525 (3.6) | 80 | 0.005 ohm-cm, 2.75 hr. pot life. |
| FILM ADHESIVE - UNCURED LOW OUTGASSING | CV-2681-12 | TWO-PART FILM ADHESIVE, SHEET & ACTIVATOR, RTV ADHESIVE | - | SHEET | - | - | Carbon Filled, 125 ohm-cm. Controls bond line thickness for adhering silicone elastomers and some metals or plastics. Easy clean-up, and consistent bond thickness. Sheet is 0.013 inches (0.3 mm) and cures on surfaces where the Activator is applied. 70 psi (0.48 MPa) lap shear. |

THERMALLY CONDUCTIVE - ELECTRICALLY INSULATING (ADHESIVE/SEALANT)

| TYPICAL USES | RECOMMENDED NUSIL PRODUCTS | PRODUCT DESCRIPTION (MIX RATIO, CURE SYSTEM, TYPE) | HARDNESS | RHEOLOGY (VISCOSITY, cP) (FLOW, in/5 min) (EXTRUSION RATE, g/min) | TENSILE psi (mpA) | % ELONGATION | PRODUCT ATTRIBUTES |
|--------------------|----------------------------|--|----------|---|-------------------|--------------|---|
| LCD BONDING | EPM-2890 | 1 PART, OXIME, RTV ADHESIVE | 65 | 40 g/min | 400 (2.8) | 150 | 0.7 W/mK, Excellent for bonding in thin layers and does not contain Boron Nitride. |
| THERMAL MANAGEMENT | SCV1-2599 | 15:1, PLATINUM, CONDUCTIVE ELASTOMER | 75 | SMOOTH PASTE | 200 (1.4) | 30 | 1.6 W/mK, 150 psi lap shear primed w/CF1-135, 2 hr. pot life (Contains Boron Nitride). |
| | CV-2963 | 20:1, PLATINUM, CONDUCTIVE ELASTOMER | 60 | SMOOTH PASTE | 425 (2.9) | 250 | 0.64 W/mK, 275 psi lap shear primed w/CF1-135, 2 hr. pot life (Contains Boron Nitride). |
| | EPM1-2493 | 1:1, PLATINUM, CONDUCTIVE ELASTOMER | 65 | 36,000 cP | 180 (1.2) | 50 | 1 W/mK, Tested per UL 94 and passed V0. Recommended for bondlines 5 micron or greater. |
| | EPM-2495 | 20:1, PLATINUM, CONDUCTIVE ELASTOMER | 55 | 140 g/min | 400 (2.75) | 225 | 0.6 W/mK, 3 hr. pot life, recommended for bondlines 50 micron or greater (Contains Boron Nitride). |
| | EPM-2490 | 15:1, PLATINUM, CONDUCTIVE ELASTOMER | 75 | SMOOTH PASTE | 200 (1.4) | 30 | 1.5 W/mK, 160 psi lap shear primed w/CF1-135, 2 hr. pot life (Contains Boron Nitride). |
| | R-2939 | 15:1, PLATINUM, CONDUCTIVE ELASTOMER | 70 | 70,000 cP | 300 (2.1) | 70 | 0.75 W/mK, 4 hr. pot life (Contains Boron Nitride). |
| | R-2949 | 15:1, PLATINUM, CONDUCTIVE ELASTOMER | 75 | 75,000 cP | 275 (1.9) | 50 | 0.75 W/mK, 4 hr. pot life, for applications requiring a broader operating temperature range (Contains Boron Nitride). |
| | R-2940 | 20:1, PLATINUM, CONDUCTIVE ELASTOMER | 90 | SMOOTH PASTE | 700 (4.8) | 35 | 0.8 W/mK, 5 hr. pot life. |
| | R-2930 | 15:1, PLATINUM, CONDUCTIVE ELASTOMER | 80 | SMOOTH PASTE | 260 (1.72) | 20 | 1.45 W/mK, 3 hr. pot life (Contains Boron Nitride). |
| | CF1-3800 | 15:1 PLATINUM, FLUORO CONDUCTIVE ELASTOMER | 50 | SMOOTH PASTE | 125 (0.86) | 50 | 50% M Fluoro, 1.25 W/mK, 1.5 hr. pot life. Recommended for short term exposure to solvents and fuel (Contains Boron Nitride). |

THERMALLY CONDUCTIVE GREASES

| TYPICAL USES | RECOMMENDED NUSIL PRODUCTS | PRODUCT DESCRIPTION (MIX RATIO, CURE SYSTEM, TYPE) | DUROMETER (TYPE A) | RHEOLOGY (VISCOSITY, cP) (FLOW, in/5 min) (EXTRUSION RATE, g/min) | TENSILE psi (mpA) | % ELONGATION | PRODUCT ATTRIBUTES |
|--------------|----------------------------|--|--------------------|---|-------------------|--------------|---|
| PROCESSORS | EPM-2401 | 1 PART, NON-CURING | - | SMOOTH PASTE | - | - | 0.7 W/mK, versatile, low volatility, thermally conductive grease where thin bondlines or a compressible grease is needed. Non-curing. |
| | G-9340 | 1 PART, NON-CURING | - | SMOOTH PASTE | - | - | 0.7 W/mK, versatile, thermally conductive grease where thin bondlines or a compressible grease is needed. Non-curing. |

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ADHESIVES, SEALANTS, TAPES & FILMS

ADHESIVES & SEALANTS

| TYPICAL USES | RECOMMENDED NUSIL PRODUCTS | PRODUCT DESCRIPTION (MIX RATIO, CURE SYSTEM, TYPE) | HARDNESS (TYPE A DUROMETER) | RHEOLOGY (VISCOSITY, cP) (FLOW, in/5 min) (EXTRUSION RATE, g/min) | TENSILE psi (mpa) | % ELONGATION | PRODUCT ATTRIBUTES |
|---|----------------------------|--|-----------------------------|---|-------------------|--------------|---|
| ONE PART CONDENSATION CURE | | | | | | | |
| LOW OUTGASSING GENERAL ADHESIVE: - CURE IN PLACE GASKETS - DAM & FILL APPLICATIONS - GENERAL ADHESIVES | CV-1142 | 1 PART, OXIME, RTV ADHESIVE | 45 | 35 g/min | 700 (4.8) | 300 | For applications requiring a broader operating temperature range. Available in black and white. 200 psi (1.4 MPa), Unprimed lap shear. |
| | CV2-1142 | 1 PART, OXIME, RTV ADHESIVE | 50 | 0.1 in/5 min | - | - | Non-slump and excellent for applications where minimal flow is desired. For applications requiring a broader operating temperature range. Available in black and white. |
| | CV7-1142-1 | 1 PART, OXIME, RTV ADHESIVE | 40 | 0.7 in/5 min | 700 (4.8) | 300 | Recommended for extended operation at elevated temperatures. |
| GENERAL ASSEMBLY FOR CONSTRUCTION & INDUSTRIAL APPLICATIONS | R-1130 | 1 PART, OXIME, RTV ADHESIVE | 35 | 0.5 in/5 min | 850 (5.9) | 325 | Non-slump. Adhesive for a variety of substrates on or near electronic components. 485 psi (3.6 MPa), primed (SP-120) lap shear. |
| | R-1600 | 1 PART, OXIME, RTV ADHESIVE | 45 | THIXOTROPIC | 650 (4.5) | 300 | Non-slump. Adhesive for a variety of substrates on or near electronic components. 200 psi (1.4 MPa), primed (SP-120) lap shear. For applications requiring a broader operating temperature range. |
| | R4-1140 | 1 PART, ACETOXY, RTV ADHESIVE | 25 | 2 in/5 min | 1400 (9.7) | 750 | Self-leveling. General all purpose adhesive for a variety of substrates. |
| | R-1140 | 1 PART, ACETOXY, RTV ADHESIVE | 30 | 1.5 in/5 min | 700 (4.8) | 350 | Non-slump. General all purpose adhesive for a variety of substrates. 625 psi (4.3 MPa), primed (SP-120) lap shear. |
| FUEL RESISTANT RTV ADHESIVE | FS-3730 | 1 PART, ACETOXY, RTV ADHESIVE | 33 | THIXOTROPIC | 900 (6.2) | 440 | 100%M Fluoro general all purpose adhesive for environments exposed to hydrocarbon fuels or solvents. White. |
| | FS3-3730 | 1 PART, ACETOXY, RTV ADHESIVE | 35 | THIXOTROPIC | 820 (5.7) | 400 | 100%M Fluoro general all purpose adhesive for environments exposed to hydrocarbon fuels or solvents. Translucent. 200 psi (1.4 MPa) lap shear. |
| ONE PART - ADDITION CURE, PRIMERLESS | | | | | | | |
| ENCAPSULATING SEMICONDUCTORS (GLOB TOP): - DAM & FILL ADHESIVE | EPM-2411-2 | 1 PART, PLATINUM, ADHESIVE | 20 | 300,000 cP | 750 (5.2) | 700 | Low volatility, Thixotropic, dispensable and 0.5 mm maximum slump. Shipped and stored frozen. |
| | R-1400 | 1 PART, PLATINUM, ADHESIVE | 19 | 400,000 cP | 825 (5.7) | 750 | Thixotropic, dispensable, and 0.5mm maximum slump. Shipped and stored frozen. |

TAPES & FILMS

| TYPICAL USES | RECOMMENDED NUSIL PRODUCTS | PRODUCT DESCRIPTION (MIX RATIO, CURE SYSTEM, TYPE) | HARDNESS (TYPE A DUROMETER) | RHEOLOGY (VISCOSITY, cP) (FLOW, in/5 min) (EXTRUSION RATE, g/min) | TENSILE psi (mpa) | ADHESION | PRODUCT ATTRIBUTES |
|---|----------------------------|---|-----------------------------|---|-------------------|----------------------------|---|
| RAW MATERIALS | | | | | | | |
| LOW OUTGASSING LIQUID PRESSURE SENSITIVE ADHESIVE (PSA) | CV-1161 | 1 PART, NON-CURING PSA, ETHYL ACETATE | - | 3,000 cP | 50 | **7.5 ppi (1.3 kN/m) | Clear silicone PSA for adhering silicone elastomers, metals, paper, glass, fabric, organic rubbers, some synthetics. Excellent for tapes on films such as polyester or kapton. |
| | CV2-1161 | 2 PART, 100:1 (PART A SOLIDS: PART B), PSA ETHYL ACETATE | - | 770 cP (PART A) | 35 (PART A) | **2.5 ppi (0.44 kN/m) | Same as CV-1161 with peroxide catalyst to reduce flow at higher temperatures. |
| | CV3-1161 | 2 PART, 100:1 (PART A SOLIDS: PART B), PSA TERT BUTYL ACETATE | - | 1,200 cP (PART A) | 37 (PART A) | **1.5 ppi (0.26 kN/m) | Same as CV-1161 with peroxide catalyst to reduce flow at higher temperatures. Recommended where low VOCs are of concern. |
| LIQUID PRESSURE SENSITIVE ADHESIVE (PSA) | PSA-1170 | 1 PART, NON-CURING PSA, ETHYL ACETATE | - | 250 | 50 | **10 ppi (1.8 kN/m) | Use for tapes and fasteners for temporarily adhering various substrates including metals, glass, silicone, and organic rubbers. |
| TACKY GEL FOR ADHESIVE TAPES | GEL-8130 | 1:1, PLATINUM GEL | 2.2 mm | 22,000 (MIXED) | 100 | ~6 psiil (0.04 MPa) | Medium tack, low penetration, for use as adhesive layer on removable tacky films and tapes (5 seconds). |
| | GEL-8132 | 1:1, PLATINUM GEL | 1.25 mm | 8,000 (MIXED) | 100 | ~10 psi (0.07 MPa) | High tack, low penetration, for use as adhesive layer on removable tacky films and tapes (5 seconds). |
| ADHESIVES | | | | | | | |
| DOUBLE SIDED TAPE - CURED LOW OUTGASSING | CV4-1161-5 | CURED DOUBLE SIDED TAPE | - | - | - | ~2.5 pps (0.44 kN/m) | Low outgassing silicone PSA on Kapton® liner, 0.005" total tape thickness. |
| FILM ADHESIVE | R-2682-12 | 2 PART (SHEET + ACTIVATOR, PLATINUM, FILM ADHESIVE) | - | - | - | ~100 psi MINIMUM (0.7 MPa) | For applications requiring shorter processing times, easy clean-up, and consistent bond thickness. Adheres to silicone, and some metals or plastics. Sheet is 0.013 inches (0.3 mm) and cures on surfaces where the Activator is applied. Cures at room temperature or rapidly with heat. |
| | CV-2680-12 | 2 PART (SHEET + ACTIVATOR, PLATINUM, FILM ADHESIVE, LOW OUTGASSING) | - | - | - | ~250 psi (1.7 MPa) | Low Outgassing version of R-2682-12. |



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ADHESIVES, SEALANTS & SILICONE PRIMERS

ADHESIVES & SEALANTS

| TYPICAL USES | RECOMMENDED NUSIL PRODUCTS | PRODUCT DESCRIPTION (MIX RATIO, CURE SYSTEM, TYPE) | HARDNESS (TYPE A DUROMETER) | RHEOLOGY (VISCOSITY, cP) (FLOW, in/5 min) (EXTRUSION RATE, g/min) | TENSILE psi (MPa) | % ELONGATION | PRODUCT ATTRIBUTES |
|--|----------------------------|---|--------------------------------|--|-------------------|--------------|---|
| TWO PART ADDITION CURE | | | | | | | |
| DAM MATERIAL FOR ELECTRONICS APPLICATIONS: - SOLAR MODULE ASSEMBLY - LIGHTING MODULE ASSEMBLY | R32-2186 | 1:1, PLATINUM, PRIMERLESS ADHESIVE | 15 | A: 80,000 cP B: 170,000cP | 975 (6.7) | 850 | Heat Cure. Flow 0.5 per 5 minutes. Requires heat to cure. 150 psi (1.0 MPa), unprimed lap shear. |
| | R33-2186 | 1:1, PLATINUM, RTV PRIMERLESS ADHESIVE | 20 | 83,500 cP | 1,000 (6.9) | 725 | RTV, Fast cure. 2 hour pot life. |
| | R31-2186 | 1:1, PLATINUM, RTV PRIMERLESS ADHESIVE | 20 | 82,000 cP | 1,000 (6.9) | 775 | RTV, Very fast cure. 15 minute pot life. Flow 0.5 in per 5 minutes, 110 psi (0.76 MPa), unprimed lap shear. |
| GENERAL USE ADHESIVE: - DEEP SECTION CURE - MINIMAL SHRINKAGE - CURE CAN BE ACCELERATED WITH HEAT | R-2186 | 10:1, PLATINUM, ADHESIVE | 30 | 83,000 cP | 1,050 (7.2) | 450 | Legacy general all purpose adhesive. 475 psi (3.3 MPa), primed (CF1-135) lap shear. |
| | R1-2145 | 1:1, PLATINUM, PRIMERLESS ADHESIVE | 45 | A: 280 g/min B: 290 g/min | 1,000 (6.9) | 400 | Gray tough, fast cure adhesive with 1 hour pot life. Will RTV. 145 psi (1.0 MPa), unprimed and 625 psi (4.3 MPa) primed (CF1-135) lap shear. |
| | R-2145 | 1:1, PLATINUM, PRIMERLESS ADHESIVE | 45 | A: 310 g/min B: 280 g/min | 1,050 (7.2) | 400 | Gray, tough, fast cure adhesive with 15 minute pot life. Will RTV. 145 psi (1.0 MPa), unprimed and 600 psi (4.1 MPa) primed (CF1-135) lap shear. |
| OPTICALLY CLEAR ADHESIVES: - REFRACTIVE INDEX MATCHING - SENSORS - OPTICAL SWITCHES - GENERAL BONDING FOR LENSES | LS2-6941 | 1:1, PLATINUM, LCE ELASTOMER | 30 | A: 1,200 cP B: 800 cP | 120 (0.83) | 100 | 1.41 Refractive Index. General use RTV clear adhesive. |
| | LS2-6140 | 1:1, PLATINUM, LCE ELASTOMER, PRIMERLESS | 50 | 2,700 cP | 1,030 (7.2) | 150 | Low Volatility, 1.41 Refractive Index at 589nm. Long pot life and requires heat to cure (80 C). Primerless adhesion to ceramic, plastics and metals. Tested per UL94 and passes VO. |
| | LS-6140 | 1:1, PLATINUM, LCE ELASTOMER | 50 | A: 3,700 cP B: 2,550 cP | 850 (5.9) | 90 | Similar to LS2-6140 with 3hr pot life and will RTV. Not recommended for dispensing as one part. 200 psi (1.4 MPa), primed (LS1-3200) lap shear. |
| | LS-6143 | 10:1, PLATINUM, LCE ELASTOMER | 40 | 3,600 cP | 600 (4.1) | 125 | Low Volatility, 1.43 Refractive Index at 589nm. For applications requiring a broader operating temperature range. 180 psi (1.2 MPa), primed (LS1-3200) lap shear. |
| | LS-6943 | 10:1, PLATINUM, LCE ELASTOMER | 40 | 5,400 cP | 900 (6.2) | 120 | 1.43 Refractive Index at 589nm. For applications requiring a broader operating temperature range. |
| | LS-6946 | 1:1, PLATINUM, LCE ELASTOMER | 30 | A: 40,000 cP B: 35,000 cP | 675 (4.7) | 275 | 1.46 Refractive Index at 589nm and contains fumed silica. |
| LOW OUTGASSING & LOW VOLATILITY ADHESIVES: - SURFACE ACOUSTIC WAVEGUIDES - HERMETIC & NEAR-HERMETIC PACKAGES - MEMs | SCV-2585 | 1:1, PLATINUM, PRIMERLESS ADHESIVE | 35 | A: 56,000 cP B: 43,000 cP | 700 (4.8) | 300 | Ultralow Outgassing. Recommended for broad temperature applications. 475 psi (3.3 MPa), primed (CF1-135) lap shear. |
| | CV-2289 | 1:1, PLATINUM, RTV PRIMERLESS ADHESIVE | 30 | FLOWABLE | 750 (5.2) | 350 | Tough, self leveling and good adhesion to various metals. Recommended for broad temperature applications. 400 psi (2.8 MPa), primed (CF1-135) lap shear. |
| | CV1-2289-1 | 1:1, PLATINUM, RTV PRIMERLESS ADHESIVE | 30 | A: 65,000 cP B: 40,000 cP | 750 (5.2) | 350 | White, versatile adhesive with 3 hr pot life. Recommended for broad temperature applications. 450 psi (3.1 MPa), primed (CF1-135) lap shear. |
| | CV2-2289-1 | 10:1, PLATINUM, ADHESIVE | 30 | A: 14,000 cP B: 10,500 cP | 450 (3.1) | 250 | White, versatile adhesive with short pot life, tack free in 20 hrs. Recommended for broad temperature applications. 300 psi (2.1 MPa) primed (CF1-135) lap shear. |
| | CV-2187 | 1:1, PLATINUM, PRIMERLESS ADHESIVE | 35 | 90,000 cP | 925 (6.4) | 400 | Tough, self-leveling and good adhesion to various metals. |
| | EPM-2420 | 1:1, PLATINUM, PRIMERLESS ADHESIVE | 30 | 2,600 cP | 425 (2.9) | 150 | Clear, self-leveling and good adhesion to various plastics. |
| HIGH TEMPERATURE APPLICATIONS: OIL & GAS SENSORS | R-2160 | 10:1, PLATINUM, ADHESIVE | 20 | A: 250,000 cP B: 650 cP | 750 (5.2) | 625 | Iron Red, flowable, legacy high performance elastomer at elevated temperatures. |

SILICONE PRIMERS

| TYPICAL USES | RECOMMENDED NUSIL PRODUCTS | PRODUCT DESCRIPTION (MIX RATIO, CURE SYSTEM, TYPE) | % SOLIDS | PRODUCT ATTRIBUTES |
|---|----------------------------|---|----------|---|
| PLASTICS SUCH AS PPA / METALS SUCH AS ALUMINUM | SP1-204 | 1 PART, CONDENSATION | 3.3 | Use with addition or condensation cure. Contains toluene. |
| | SP-120 | 1 PART, CONDENSATION | 4.0 | Use with addition or condensation cure. Available in Red. |
| | SP-121 | 1 PART, CONDENSATION | 3.2 | Use with addition or condensation cure. |
| METALS SUCH AS ALUMINUM, TITANIUM & STAINLESS STEEL | SP-124 | 1 PART, CONDENSATION | 10.0 | Use with addition or condensation cure. |
| | CF1-135 | 1 PART, CONDENSATION | 4.5 | Use with addition cure silicones. |
| | CF2-135 | 1 PART, CONDENSATION | 4.5 | Use with addition cure silicones. |
| | CF6-135 | 1 PART, CONDENSATION | 8.7 | Recommended where platinum inhibition is of concern. |
| | SP-142 | 1 PART, CONDENSATION | 15.0 | Recommended where platinum inhibition is of concern. |
| | SP-270 | 1 PART, CONDENSATION | 15.0 | Improved adhesion to gold - Recommended where platinum inhibition is of concern such as when bonding on polyphenylsulphone. |
| | SP-271 | 1 PART, CONDENSATION | 20.0 | Recommended where platinum inhibition is of concern. |

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Supported by our high-touch approach to customer care, our best-in-class product lines are the choice across the aerospace, defense, optoelectronics and general electronics industries.

Maahantuonti ja myynti Suomessa:

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