



POTTING AND ENCAPSULATING SILICONE GELS

- 20-1700 – SOFT – FAST CURE**
- 20-1705 – FIRM – FAST CURE**
- 20-1710 – SOFT – EXTENDED CURE**
- 20-1715 – FIRM – EXTENDED CURE**

DESCRIPTION:

The 20-1700 Series of silicones are soft, clear silicone elastomeric gels. They are designed for electronic potting applications.

The 20-1700 Series offer excellent electrical properties and their soft cushioning provide vibration and thermal shock protection. They are also outstanding at providing protection from moisture, dust and other environmental contaminants.

Due to their excellent electrical properties, dielectric strength, and resistivity the 20-1700 Series are used to encapsulate electronic components, junction boxes, power modules and LED's.

The 20-1700 Series are formulated without solvents or other toxic materials. They are not regulated or considered hazardous for transportation.

FEATURES:

- Easy 1:1 mix ratio
- Soft
- Easy to penetrate and remove
- Solvent free
- Fast cure
- Excellent electrical properties

BENEFITS:

- Simple to use
- Low stress on components and vibration resistant
- Repairs or removal of components saves money
- Low toxicity
- Improves productivity
- Extends life of electronic assemblies

TYPICAL SPECIFICATIONS:

| | <u>20-1700</u> | <u>20-1705</u> | <u>20-1710</u> | <u>20-1715</u> |
|-----------------------------|----------------|----------------|----------------|----------------|
| Color | | | | |
| Resin (Part A) | Clear | Clear | Clear | Clear |
| Activator (Part B) | Clear | Clear | Clear | Clear |
| Viscosity, @ 25°C, cps | | | | |
| Resin (Part A) | 6,500 | 6,500 | 6,500 | 6,500 |
| Activator (Part B) | 6,500 | 6,000 | 6,500 | 6,000 |
| Specific Gravity, @ 25°C | | | | |
| Resin (Part A) | .98 | .98 | .98 | .98 |
| Activator (Part B) | .98 | .98 | .98 | .98 |
| Working Time, 25°C, minutes | 6 | 4 | 25 | 20 |
| Hardness, Shore A | Soft gel | Firm gel | Soft gel | Firm gel |

TYPICAL SPECIFICATIONS (continued):

| | <u>20-1700</u> | <u>20-1705</u> | <u>20-1710</u> | <u>20-1715</u> |
|----------------------------------|----------------------|----------------------|----------------------|----------------------|
| Thermal Conductivity, W/m- °K | 0.16 | 0.16 | 0.16 | 0.16 |
| Volume Resistivity, ohm-cm, 25°C | 1 x 10 ¹⁵ | 1 x 10 ¹⁵ | 1 x 10 ¹⁵ | 1 x 10 ¹⁵ |
| Dielectric Constant @ 60 Hz | 2.7 | 2.7 | 2.7 | 2.7 |
| Dielectric Strength, kV/mm | 18 | 18 | 18 | 18 |
| Operating Temperature, °C | -55 to +200 | -55 to +200 | -55 to +200 | -55 to +200 |

CURE SCHEDULE

| | <u>20-1700</u> | <u>20-1705</u> | <u>20-1710</u> | <u>20-1715</u> |
|---------|----------------|----------------|----------------|----------------|
| at 25°C | 2 hrs. | 2 hrs. | 12 hrs. | 12 hrs. |
| at 60°C | 5 min. | 5 min. | 10 min. | 10 min. |

INSTRUCTIONS FOR USE:

1. By weight or volume, mix 1 part base silicone to 1 part activator. Mix uniformly, scraping sides and bottom of mixing container. Do not whip air into mixture.
2. De-air by pulling vacuum on mixed material.

SUBSTRATE NOTES:

Certain materials may inhibit the cure of this product. Materials that should be avoided include sulfur containing materials, nitrogen containing materials (i.e. amines) some silicones (tin cured), and butyl and chlorinated rubbers. If in doubt, a patch test should be done.

STORAGE:

When stored in the original, unopened container, in a dry location at 65° - 80°F, the 20-1700 Series have a shelf life of approximately twelve months.

PACKAGING RECOMMENDATION

Using the popular TriggerBond® cartridges will add convenience and reliability. Due to their extremely short working time (Pot Life), TriggerBond® packaging or Meter Mix Dispense Equipment is strongly recommended for the 20-1700 and 20-1705.

AVAILABILITY:

20-1700 Series silicones are available in quart, gallon, five gallon pail, and 55 gallon drums. The silicones are also available in the popular TriggerBond® 50ml, 200ml, and 400 ml cartridges.

IMPORTANT:

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