

DESCRIPTION

Essil 245/255 is a two component, room temperature or heat accelerated polyaddition silicone rubber compound. It is designed to have high strength, long term stability, and excellent detail reproduction/ release characteristics. Essil 245/255 is an excellent choice for pattern/model shop mold making and tooling applications.

PROPERTIES

- Exceptional chemical resistance
- Very easy to mix and cast
- Very low shrinkage when cured at room temperature
- Typical coverage: 21.3 cubic inches/lb.

TYPICAL PROPERTIES AS SUPPLIED

| Composition | | | Essil 245 RESIN | Essil 255 CATALYST | MIXED |
|--------------------------|-------------|------------|---------------------------|--------------------------|---------------------------|
| Mix ratio by weight | | | 10 | 1 | - |
| Mix ratio by volume | | | | | |
| Aspect | | | Thick, pourable liquid | Thin, pourable liquid | Thick, pourable liquid |
| Color | | | Beige | Black | Gray |
| Viscosity at 25°C | (mPa.s) | ASTM D2196 | 45,000 | 600 | 25,000 |
| Density at 25°C | (lbs./gal.) | | 11.3 | 8.7 | 11.1 |
| Specific gravity at 25°C | | | 1.4 | 1.0 | 1.33 |
| Pot life at 25°C | (min) | | - | - | 100 |

TYPICAL PROPERTIES OF CURED RUBBER (1)

| | | | |
|----------------------------------|-----------------|---------------|------------------------------|
| Density at 25°C | | (lbs./gal.) | 10.8 |
| Specific gravity at 23°C | | | 1.3 |
| Hardness | ASTM D2240 | Shore A | 53 |
| Tensile strength | ASTM D412 | psi (MPA) | 700 (4.83) |
| Tensile elongation | ASTM D412 | % | 340 |
| Tear resistance | ASTMD624, DIE B | ppi (N/mm) | 75 (13.2) |
| Coefficient of Thermal Expansion | | in/in/°F (°C) | 1.4 (2.5) x 10 ⁻⁴ |
| Temperature resistance | | °F (°C) | -65 to 400 (-54 to 204) |

(1) Average values obtained on standard specimens cured 24h at 77°F (25°C).

Cure time may be accelerated by curing 2-3h at 120-150°F (49-65°C) - WILL AFFECT PROPERTIES.



ESSIL 245/255

POLYADDITION SILICONE ELASTOMER

Technical Data Sheet

| TYPICAL ELECTRICAL PROPERTIES | | | |
|-------------------------------|-----------|--------|--------------------|
| Dielectric constant, 1kHz | ASTM D150 | | 3.4 |
| Dielectric factor, 1kHz | ASTM D150 | | 0.007 |
| Dielectric strength, 75mil | ASTM D149 | V/mil | 550 |
| Volume resistivity | ASTM D257 | ohm-cm | 1×10^{15} |

PROCESSING CONDITIONS

Mix both parts well before use. Weigh the desired amount of resin into a clean container. Tip the container and roll the base around the side wall up to two inches from the top. This will prevent the catalyst from being absorbed into the container. Do not fill the container more than 1/3 full to allow sufficient room for expansion during deaeration. Weigh the proper amount of catalyst into the container and mix until a uniform color is obtained. Evacuate at a minimum of 29 inches of vacuum for 5-10 after the material recedes. Pour slowly in a steady stream so that the mixture flows evenly over pattern.

STORAGE CONDITIONS

Shelf life is 24 months when stored in original unopened containers between 59 – 77°F (15 – 25°C). Any opened can must be tightly closed.

HANDLING PRECAUTIONS

Possibly irritating to the respiratory system and to skin. Always wear appropriate personal protection. Avoid fumes, use only in a well ventilated area. If skin contact occurs, wash immediately with soap and water; if irritation develops contact a physician. In the event of an eye splash, wash the contaminated eye with water for at least 15 minutes and immediately seek medical help. If ingested, contact a physician.

Consult the MSDS for further information.

GUARANTEE

The information contained in this technical data sheet result from research and tests conducted in our Laboratories under precise conditions. It is the responsibility of the user to determine the suitability of AXSON products, under their own conditions before commencing with the proposed application. AXSON guarantee the conformity of their products with their specifications but cannot guarantee the compatibility of a product with any particular application. AXSON disclaim all responsibility for damage from any incident which results from the use of these products. The responsibility of AXSON is strictly limited to reimbursement or replacement of products which do not comply with the published specifications