

ELASTOSIL[®] A 442



Moisture Curing Silicone Rubber (RTV-1)

ELASTOSIL[®] A 442 is a one-component, thixotropic sealant intended for use where a soft, high elongation material is desired. ELASTOSIL[®] A 442 is particularly effective as an adhesive in applications where the bonded joint is subjected to relatively large movements in service.

Properties

- Tenacious adhesion to most metals, plastics, synthetic rubbers, glass and concrete
- Low modulus of elasticity for superior sealant joint movement capability
- Low compressive modulus, ideal for forming compression gaskets on covers and closures where low clamping pressures are essential
- Stays flexible between -65°F and 400°F
- Impervious to weathering and ultraviolet degradation
- Resistant to hot lubricating oils
- Causes little or no foam in lubricating oils
- Non-corrosive to ferrous metals

Technical data

Properties Uncured

| Property | Condition | Value | Method |
|--|------------------|------------|-----------|
| Appearance | - | Gray Paste | WSTM-2119 |
| Extrusion rate - mass flow (0.125 inch nozzle at 90 psi) | - | 230 g/min | WSTM-2304 |
| Skin formation time | 25 °C 50 % r.h | 6 min | WSTM-2118 |
| Tack-free time | 25 °C 50 % r.h | 20 min | - |

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

Properties Cured

| Property | Condition | Value | Method |
|--|-----------|------------------------|-------------|
| Specific gravity | - | 1.39 g/cm ³ | - |
| Hardness Shore A | - | 18 | ASTM D 2240 |
| Tensile strength | - | 225 psi | - |
| Elongation at break | - | 800 % | ASTM D 412 |
| Compression Modulus 100% psi | - | 30 % | - |
| Lap shear adhesion CRS ⁽¹⁾ | - | 100 psi | - |
| Lap shear adhesion movement to rupture, inches | - | 0.40 psi | - |

¹ 1 inch overlap with 0.6 inch bondline, 14 day cure rupture, psi

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All the information provided is in accordance with the present state of our knowledge. Nonetheless, we disclaim any warranty or liability whatsoever and reserve the right, at any time, to effect technical alterations. The information provided, as well as the product's fitness for an intended application, should be checked by the buyer in preliminary trials. Contractual terms and conditions always take precedence. This disclaimer of warranty and liability also applies particularly in foreign countries with respect to third parties' rights.

Application details

ELASTOSIL® A 442 can be bulk dispensed by hand or robot applicators with conventional drum and pail extruder pumps equipped with high pressure flexible fluid hoses. Caution! Hose pressure rating must exceed the maximum possible output of the pump and be moisture impermeable. Contact your Wacker Silicones representative for equipment recommendations. Surfaces to be bonded must be clean and free of oil, grease, soaps, dust, etc. Rubbers and plastics must be free of die lubricants and mold release agents. Certain plastics such as polypropylene require flame treatment to attain maximum adhesion. The surface cure of ELASTOSIL® A 442 may be greatly accelerated by exposure to a moist carbon dioxide rich atmosphere. A carbon dioxide level of one to two percent is sufficient to produce a skin-over time of two to three minutes. ELASTOSIL® A 442 is not recommended for use on polycarbonate or in direct contact with liquid gasoline, diesel fuel or hot engine coolant.

Processing

The performance of ELASTOSIL® A 442 is dependent upon many factors, including the application method, the thickness of the layer deposited, the substrate, the curing atmosphere, and the curing cycle.

skin should form over the surface it may be removed by careful skimming. Spray equipment and brushes should be washed and wiped clean with naphtha or mineral spirits after use.

The adhesion of ELASTOSIL® A 442 to most substrates can be enhanced by a 30 second to one minute preheat cycle at 60-70°C before exposure to the UV source

Packaging and storage

Storage

The "Best use before end date" of each batch is shown on the Certificate of Analysis. Storage beyond the date specified on the Certificate of Analysis 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 notes

For specific information regarding safe handling of this material, please refer to the Safety Data Sheet.

QR Code ELASTOSIL® A 442



For technical, quality or product safety questions, please contact:

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