

ELASTOSIL® A 442

Silicone Rubber

Characteristics

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.

Specifications

Typical Property values are not intended for use in the preparation of specifications. Please contact Wacker Silicones for assistance and recommendations before writing specifications on this product.

Use Information

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.

Features

- 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

Product data

Property	Test Procedure	Value
Appearance	WSTM-2119	Gray Paste
Extrusion rate, gms/min*	WSTM-2304	230
Skin-over time, min, at 25 °C, 50% relative humidity	WSTM-2118	6
Tack-free time, min, at 25 °C, 50% relative humidity	WSTM-2118	20
As Cured		
Specific gravity at 23 °C	ASTM D 792	1.39
Hardness, shore A	ASTM D 2240	18
Tensile strength, psi	ASTM D 412	225
Modulus, 100%, psi	ASTM D 412	30
Elongation, %	ASTM D 412	800
Lap shear adhesion, CRS**	ASTM D 1002	100
movement to rupture, inches	0.40	

* 0.125 inch nozzle at 90 psi. ** 1.0 inch overlap with 0.06 inch bondline, 14 day cure rupture, psi.

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.

Storage and Shelf Life

ELASTOSIL® A 442 has a shelf life of at least 12 months when stored below 32°C (90°F) in the tightly closed original container.

Storage beyond the date specified on the label 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 and Handling

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

Ordering Information

ELASTOSIL® A 442 is available in 5-gallon (50 lb.) pails and 55-gallon (500 lb.) drums. Orders may be placed directly to:

Wacker Silicones Division
3301 Sutton Road
Adrian, Michigan 49221-9397
Phone: 1 800 248-0063

To speak with a technical representative or for information on other wacker products call toll free 1 800 248-0063.

Wacker Silicones is a domestic manufacturer of basic silicone materials for industry. Products include silicone fluids and emulsions, antifoam and release agents, room temperature vulcanizing (RTV) sealants and adhesives, heat curable rubber (HCR), liquid silicone rubber (LSR), masonry water repellents, paint raw materials, paper release coatings, and textile finishes.

Because we cannot foresee the varied conditions under which this information and our materials may be used, we do not guarantee the applicability or accuracy of this information or the suitability of our materials in any specific situation. Samples are provided and users should make their own tests to determine the suitability of our materials for their specific purposes. These materials are provided without warranty, either expressed or implied, of fitness for a specific purpose and nothing herein shall be construed as a recommendation for uses, which infringe valid patents, or as extending a license under valid patents.

The management system has been certified according to DIN EN ISO 9001 and DIN EN ISO 14001



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

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WACKER SILICONES
Wacker Chemical Corporation
3301 Sutton Road
Adrian, MI 49221
TEL: + 1 517 264 8500
FAX: + 1 517 264 8246

Email: customer care@wacker.com

www.wacker.com
silicones@wacker.com