Dynatex® *A division of* SOUDAL Accumetric

TECHNICAL DATA SHEET

INDUSTRIAL GRADE SILICONE SEALANT
PART NO. 49297

TYPICAL PROPERTIES

Uncured

Color	Black
Specific Gravity @ 77°F (25°C)	1.02
Extrusion Rate (1/8" orifice, 90 psi), gms/min	400
Flow Rate (sag or slump on 1/8" X 4" bead), in.	Nil
Tack-Free Time @ 77°F (25°C) and 50% RH, Minutes	10-20
Cure Time @ 77°F (25°C) and 50% RH, Hours	24

Cured – Physical

ASTM D 676	Durometer Hardness, Shore A, points	25
ASTM D 412	Tensile Strength, psi (MPa)	350
ASTM D 412	Elongation, %	500
ASTM D 746	Brittle Point, degrees	-100°F (-73°C)
ASTM D 2137A	Volume Coefficient of Thermal Expansion, 32°F to 212°F (0°C to 100°C)	9.3×10^{-4}
	Thermal Conductivity, cal/(cm) (degrees C), (sec)	0.45×10^{-3}
	BTU per (ft) (degrees F) (hr)	0.11

Cured † - Electrical

ASTM D 257	Volume Resistivity, ohm-cm	1.5×10^{15}
ASTM D 149	Dielectric Strength, **volts/mil	550
ASTM D 150	Dielectric Constant,	
	@ 60 Hz	2.8
	@ 100 Hz	2.8
	@100 kHz	2.8
ASTM D 150	Dissipation Factor,	
	@ 60 Hz	0.0015
	@ 100 Hz	0.0015
	@ 100 kHz	0.0015

*information on this data sheet is subject to change without notice and should not be used for writing specifications.

FEATURES

- Bonds and seals
- Insulates thermally and electrically
- Forms a waterproof and weatherproof seal
- Adheres to clean metal, glass most types of wood, silicone resin, synthetic fiber, painted surfaces and much more....
- Good resistance to weathering, vibration, moisture, ozone and extreme temperatures

DESCRIPTION

Dynatex® *Black Industrial Grade Silicone Sealant* is a paste-like, one component material which cures to a tough, rubbery solid upon exposure to moisture in the air. Because it does not flow due to its own weight, this sealant can be applied overhead or on sidewall joints and surfaces without sagging, slumping or running off. It may be applied in sub-zero weather without loss of extrusion or physical property characteristics. Fully cured ***Dynatex®*** *Black Industrial Grade Silicone Sealant* can be used for extended periods at temperatures up to 450^{0}F (232^{0}C), and for shorter periods as high as 500^{0}F (260^{0}C). Test have shown that even after two months at 450^{0}F (232^{0}C), or up to one week at 500^{0}F (260^{0}C), the sealant remains rubbery.

TYPICAL APPLICATIONS

- Adhering auto and appliance trim, including metal, fabric and fabric-backed plastics
- Bonding gaskets in heating and refrigeration units
- Attaching screwless brackets or nameplates and tacking plastic materials to metal
- Sealing windows in oven doors and flues on gas appliances, flanged pipe joints, access doors
- Providing forming-in-place gaskets for gear boxes, compressors, pumps
- Sealing trailers, truck cabs
- Bonding and sealing appliance parts
- Bonding signs and sign letters
- Creating anti-abrasion coatings
- Sealing marine cabins, windows and more...

HOW TO USE

Dynatex® *Black Industrial Grade Silicone Sealant* is supplied in ready-to-use form. It flows readily from its container under pressure. A spatula or wooden paddle can be used to tool the surface.

Cure progresses inward from the surface. At conditions of 75^0F (24^0C) and 50-percent relative humidity, a tack-free skin forms within 20 minutes. Tooling should be completed within 5 to 10 minutes of application. Alternate periods of application and tooling may be required. If masking tape is used to mask an area it must be removed before the tack-free skin forms.

CURE TIME

Cure time is affected by relative humidity, degree of confinement and cross-sectional thickness of the sealant. Sections up to 1/8-inch thick become rubbery solids in about 24 hours at room temperature at 20-percent relative humidity. Less moisture content reduces cure time slightly. In 24 hours, sections up to 1/8-inch thick cure to a rubber with a Shore A Durometer hardness of about 20 points. After 3 days at room temperature, this Durometer Hardness levels off to about 25 points.

In applications where ***Dynatex®*** *Black Industrial Grade Silicone Sealant* may be partially or totally confined during cure, the time required for proper cure is generally lengthened by the degree of confinement. It is possible that with absolute confinement cure will not be completed. The result is the softening of the sealant at elevated temperatures.

Metal-to-metal bonds should not overlap more than one inch. Every application involving confinement during cure should be thoroughly tested before commercialization.

Curing time increases with the thickness of the sealant. A 1/2-inch cross section, for example, may require 3 or 4 days for complete solidification. However, the cure will have penetrated the outer 1/8-inch in about 24 hours.

Adhered to glass, metal or most woods, ***Dynatex®*** *Black Industrial Grade Silicone Sealant* has typical peel strength of 20 pounds per inch, after 72 hours at room temperature.

An odor caused by the liberation of acetic acid is given off during cure. This odor disappears as the cure progresses and is not detectable after cure is complete. Fully cured sealant is non-hazardous.

STORAGE AND SHELF LIFE

When stored in the original unopened containers at or below 90°F (32°C), ***Dynatex®*** *Black Industrial Grade Silicone Sealant* has a shelf life of 12 months from date of shipment.

In Countries where high heat and humidity are a factor, special precautions must be taken. Store product in a covered, well-ventilated warehouse and avoid excessive heat conditions. Storage in high heat, high humidity conditions may reduce shelf life by up to 30%. Rotation of stock is an absolute necessity. Cartons should always be stacked upright with the nozzle tip pointed upwards. DO NOT stack cartons on their side. ***NEVER*** stack cartons more than 8 high. DO NOT store within 1 meter (4 feet) of roofline of the warehouse or storage building.

USERS PLEASE READ

The information and data contained herein is believed to be accurate and reliable; however, it is the user's responsibility to determine suitability of use. Since the supplier cannot know all the uses, or the conditions of use to which these products may be exposed, no warranties concerning the fitness or suitability for a particular use or purpose are made.

It is the user's responsibility to thoroughly test any proposed use of our products and independently conclude satisfactory performance in the application.

Likewise, if the application, product specifications or manner in which our products are used requires government approval or clearance, it is the sole responsibility of the user to obtain sure authorization.

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Dynatex® *A division of Soudal Accumetric*

Dynatex
350 Ring Road
Elizabethtown
Kentucky 42701 USA
(800) 999-2937
TEL (270) 769-5557
FAX (270) 769-6418
Outside U.S.
TEL +1(270) 769-5557
FAX +1(270) 769-6418

Accumetric Asia Pacific, LTD
18 Kitpanit Bldg. 5th Floor
#502 Patpong Road
Suriyawong, Bangrak
Bangkok, 10500 Thailand
TEL (662) 634-3060
FAX (662) 634-3066

Email: sales@dynatexinc.com
Website: www.dynatexinc.com