



Dynatex®

Technical Datasheet

DYNA 49297

Revised Date: June 2011

Description

Dynatex Industrial Grade Silicone Sealant is a paste-like, one part component materials which cures to a tough, rubber 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 adheres to clean metal, glass, most types of wood, silicone resins, vulcanized silicone rubber, ceramic, natural and synthetic fibre, and painted and many plastic surfaces.

Applications

- Adhering auto and appliance trim, including metal, fabric and fabric-baked plastics
- Bonding gaskets in heating and refrigeration units
- Attaching screw less 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 formed-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 and windows
- Filleting and caulking joints in sheet-metal stacks, ductwork and equipment housing

Presentation

Dynatex Industrial Grade Silicone Sealant available in a 312g cartridge.

Storage

When stored in original unopened container at or below 32°C, Dynatex Industrial Grade Silicone Sealant has a shelf life of 12 months from date of shipment

Typical Properties

As Supplied

Colours	Black
Specific Gravity @ 25°C	1.04
Extrusion Rate (1/8" Orifice, 90psi)	350 gms/min
Flow Rate (sag or slump on 1/8" x 4" bead)	NIL
Tack Free Time @ 25°C and 50% RH	10 to 20 mins
Cure time at 25°C and 50% RH (1/8"thick)	24 Hours

Cured-Physical

ASTM D 676	Durometer Hardness, Shore A,	30 Points
ASTM D 412	Tensile Strength, MPa (psi)	2.4(350)
ASTM D 412	Elongation	500%
ASTM D 746	Brittle Point	-73°C

Limitations

Dynatex Industrial Grade Silicone Sealant will corrode or not adhere to copper, brass (and other copper-containing alloys), magnesium, galvanised metals, (and other zinc-containing alloys). This sealant is not recommended for use on brick, masonry and cementitious substrates.

Dynatex Industrial Grade Silicone Sealant has good resistance to weathering, vibration, moisture, ozone and extreme temperatures. It may be applied in sub-zero weather without loss of extrusion or physical property characteristics and is effective to -62°C. Fully cured Dynatex White Industrial Grade Silicone Sealant can be used for extended periods at temperatures up to 232°C, and for shorter periods as high as 260°C.

ACTIVE & INACTIVE METAL TABLE

Super Active Very Fast Cure	Active Fast Cure	Inactive Slow Cure	Passive Primer Necessary
Brass, Copper, Magnesium	Iron, Steel, Nickel, Aluminium	Stainless Steel, Titanium, Zinc, Anodized Aluminium, Galvanised Steel	Ceramics, Glass, Plastics, Painted Finishes



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How to Use

Dynatex 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 25°C and 50 percent relative humidity, a tack-free skins form within 20 minutes. Tooling should be completed within 5 to 10 minutes of application. Alternative 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. More 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 25 points. After 3 days at room temperature, this Durometer Hardness levels off to about 30 points.

In applications where Dynatex 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 commercialising.

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.

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

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

FDA Status

When fully cured and washed, Dynatex Industrial Grade Sealant meets the requirements of FDA Regulation no. 21 CFR 177.2600 subject to end-use compliance with any applicable total extractives limitations.

USDA Status

Dynatex Industrial Grade Silicone Sealant is authorised by the United States Department of Agriculture for use In federally inspected meat and poultry plants.

Conversions

- (°C x 1.8)+32 = °F
- N/mm x 5.71 = lb/in
- MPa x 145 = psi
- N/mm² x 145 = psi
- N x 0.225 = lb
- N·m x 8.851 = lb·in
- N·mm x 0.738 = lb·ft
- mPa·s = cP

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