

Higluce 5920

PRODUCT DESCRIPTION

Higluce 5920 provides the following product characteristics:

Technology	Silicone
Chemical Type	Silicone
Appearance (uncured)	Copper colored paste ^{LMS}
Components	One component - requires no mixing
Thixotropic	Reduced migration of liquid product after application to substrate
Cure	Room temperature vulcanizing (RTV)
Application	Gasketing and sealing
Specific Benefits	Adheres to a wide range of substrates.

Higluce 5920 is a moisture-curing, non-corrosive silicone. The thixotropic nature of Higluce 5920 reduces the migration of liquid product after application to the substrate. It has been designed specially for gasketing and sealing applications where excellent temperature resistance is required. It is also used for electrical insulating applications. This product is typically used in applications up to 350 °C.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 22 °C 1.05

Flash Point - See SDS

Extrusion Rate, g/min:

Pressure 0.62 MPa, time 15seconds, temperature 22 °C:
Semco Cartridge ≥ 275 ^{LMS}

Flow, ISO 7390, mm:

After 2 minutes ≤ 13 ^{LMS}

TYPICAL CURING PERFORMANCE

Surface Cure

Tack Free Time is the time required to achieve a tack free surface

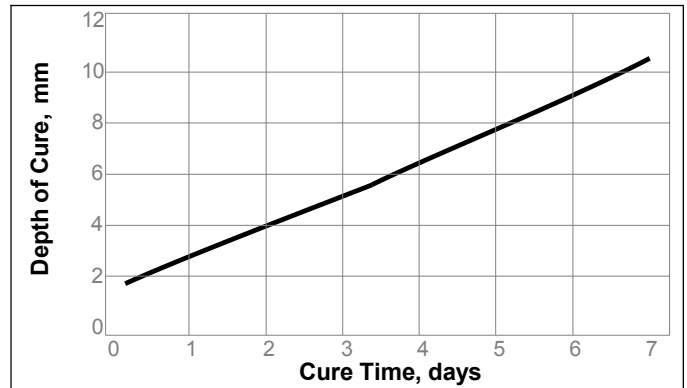
Tack Free Time, minutes:

Cured @ 22 °C / 50±5 % RH 20 to 60^{LMS}

Skin Over Time, minutes 20

Depth of Cure

The graph below shows the increase in depth of cure with time at @ 22°C



TYPICAL PROPERTIES OF CURED MATERIAL

Cured for 7 days @ 25°C / 50±5 % RH

Physical Properties:

Shore Hardness, ISO 868, Durometer A 23 to 38^{LMS}
 Elongation, ISO 37, % ≥ 350
 Tensile Strength, ISO 37 N/mm² ≥ 1.4 ^{LMS}
 (psi) (205)

Cured for 21days @ 22°C / 50±5 % RH

Physical Properties:

Coefficient of Thermal Expansion, ISO 11359-1, K⁻¹ 340×10^{-6}

Electrical Properties:

Volume Resistivity, IEC 60093, Ω·cm 5.5×10^{15}
 Surface Resistivity, IEC 60093, Ω 200×10^{15}

TYPICAL PERFORMANCE OF CURED MATERIAL
Adhesive Properties

After 21 days @ 22°C / 50% RH, and 0.5 mm gap

Lap Shear Strength :

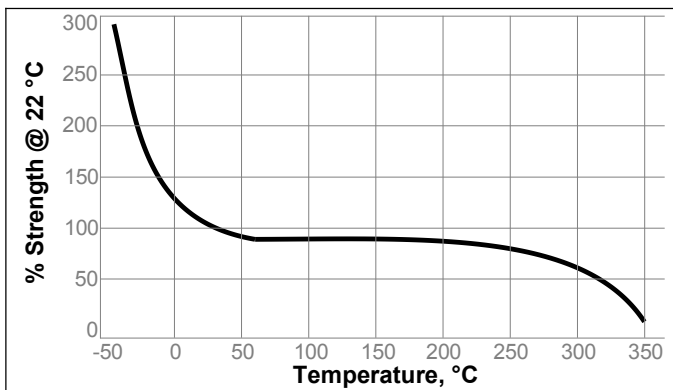
Copper	N/mm ² 0.3 (psi) (40)
Brass	N/mm ² 0.1 (psi) (15)
Mild steel	N/mm ² 0.25 (psi) (35)
Mild steel (grit blasted)	N/mm ² 0.65 (psi) (95)
Aluminum	N/mm ² 0.25 (psi) (35)
Aluminum (grit blasted)	N/mm ² 0.6 (psi) (90)
Stainless steel	N/mm ² 0.25 (psi) (35)
ABS	N/mm ² 0.1 (psi) (15)
Silicone	N/mm ² 0.1 (psi) (15)
Phenolic	N/mm ² 1.0 (psi) (145)
Zinc plated steel	N/mm ² 0.4 (psi) (55)
Steel (e-coated)	N/mm ² 1.3 (psi) (185)

TYPICAL ENVIRONMENTAL RESISTANCE

Cured for 21 days @ 22 °C / 50% RH

Hot Strength

Lap Shear Strength, ISO 4587, Aluminum (Grit blasted)

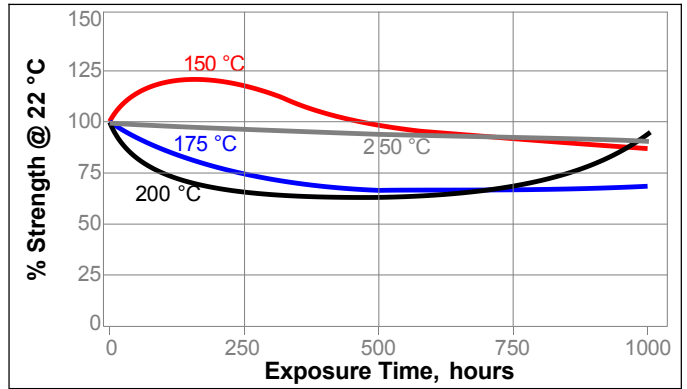


Heat Aging

Aged at temperature indicated and tested @ 22 °C

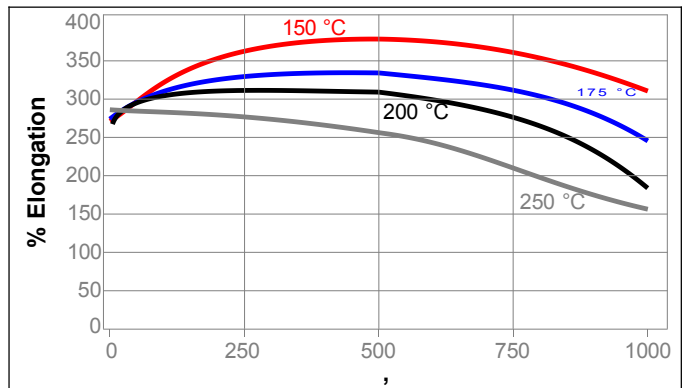
Lap Shear Strength :

Aluminum (Grit blasted)



Physical Properties

Elongation, %



Chemical/Solvent Resistance

Shear Strength on Aluminum (Grit blasted) Lapshears

Environment	°C	% of initial strength		
		100 h	500 h	1000 h
ATF	120	45	75	80
Mineral Oil	150	50	45	45
Motor oil (5W40 -Synthetic)	120	100	90	80
Motor oil (5W40 -Synthetic)	150	80	40	30
Water	60	85	85	85
Water	90	40	15	15
Water/glycol 50/50	100	35	10	10
Water/glycol 50/50	120	15	10	10

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

NOTE: *This product is not recommended for contact with gasoline.*

Directions for use

1. For best performance bond surfaces should be clean and free from grease.
2. Moisture curing begins immediately after the product is exposed to the atmosphere, therefore parts to be assembled should be mated within a few minutes after the product is dispensed.
3. The bond should be allowed to cure (e.g. seven days), before subjecting to heavy service loads.
4. Excess material can be easily wiped away with non-polar solvents.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage: 8 °C to 21 °C. Storage below 8 °C or greater than 28 °C can adversely affect product properties. Material removed from containers may be contaminated during use. Do not return product to the original container. Higluce cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated.
