



## Technical Data Sheet

### SILASTIC™ LC 30-1020 Silicone Rubber

High-strength silicone rubber material for use filling void space created during spinning operations for subsea umbilical cables.

#### Features & Benefits

- Two-part Room Temperature Vulcanizing (RTV) Silicone Rubber
- Durable and flexible material with good tensile/elongation
- Hydrophobic in nature, provides excellent water shedding properties
- Low water absorption provides excellent resistance to moisture
- Material is easy to mix and apply with good working time
- Addition cure reaction which will cure in thick sections even in confined environments with no by-products

#### Composition

- Two-part silicone rubber supplied as a pourable liquid which cures to an opaque blue rubber

#### Applications

- Subsea umbilical cables; SILASTIC™ LC 30-1020 Silicone Rubber is a hydrophobic voidfill material that is excellent for filling small voids in various subsea umbilical cable designs.

#### Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Property	Unit	Result
Appearance – Base		White
Viscosity – Base	cP	55,000
Appearance – Curing Agent		Blue
Viscosity – Curing Agent	cP	4,200
<b>As Catalyzed 10:1 Ratio, by weight</b>		
Working Time	minutes	60
Cure Time at 23°C (77°F)	hours	24
<b>As Cured – Physical Properties 24 hr cure at 23°C (77°F)</b>		
Specific Gravity		1.08
Hardness – Shore A		34
Tensile Strength	psi	975
Elongation at Break	%	475

## **Description**

SILASTIC™ LC 30-1020 Silicone Rubber is a low viscosity two-part silicone rubber designed as a flexible material which maintains excellent stability even in extreme conditions. This high-strength silicone rubber cures at room temperature through an addition-reaction cure in unlimited thickness, regardless of part configuration or degree of confinement.

## **How To Use**

### **Addition Of The Curing Agent**

SILASTIC™ LC 30-1020 Base and Curing Agent are produced as a two part system to be used in a 10:1 mix ratio. It should be noted that varying the ratio of the SILASTIC™ LC 30-1020 Blue Curing Agent will not hasten or slow the rate of cure appreciatively. It can however, result in lowering the mechanical properties of the cured rubber if gross errors in rationing occur. The curing agent should be added with the use of mechanical mixing with little or no introduction of air into the system.

### **Working Time**

Upon mixing the curing agent into the base, SILASTIC™ LC 30-1020 Silicone Rubber remains pourable for up to 60 minutes after being mixed at room temperature.

### **Curing**

The cure of SILASTIC™ LC 30-1020 Silicone Rubber occurs by a reaction between the base polymer and the curing agent. This polymerization typically requires 24 hours after the addition of the curing agent at room temperature (23°C) for it to reach its full mechanical properties. For some applications, where applied in temperatures below Room Temperature (RT), it is recommended to allow for material to cure a longer period of time until material reaches its final hardness. This material will not revert or de-polymerize, even under conditions of elevated temperature and confinement. Vulcanization can be accelerated by heating the catalyzed material. The rate at which a thick section will cure depends on the size and shape of the piece and the ability for heat to penetrate when casting at elevated temperatures.

### **Inhibition Of Cure**

All addition-cure silicone elastomers are susceptible to cure inhibition when in contact with certain chemicals. Amines and sulfur containing materials are strong inhibitors for silicone elastomers such as these. It is strongly recommended that mixing equipment, cable construction materials and work areas be checked for any inhibition effects before use. Inhibition can be identified when a catalyzed elastomer is only partially cured after 12 hours, or has a sticky surface when it has been in contact with another material. If noted, clean the affected area with an appropriate solvent to remove any contamination.

## **Handling Precautions**

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT CONSUMER.DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

## **Usable Life And Storage**

Product should be stored at or below 35°C (95°F) if storing for extended periods of time. The materials, if stored in the original container and kept free of any cross contamination, have a shelf life of 18 months from the date of manufacturing.

UNRESTRICTED – May be shared with anyone

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SILASTIC™ LC 30-1020 Silicone Rubber

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**Packaging  
Information**

SILASTIC LC 30-1020 Base is supplied in 200 kg drums. SILASTIC LC 30-1020 Blue Curing Agent is supplied in 3.4 kg pails.

**Limitations**

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

**Health And  
Environmental  
Information**

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, [consumer.dow.com](http://consumer.dow.com) or consult your local Dow representative.

[silastic.com](http://silastic.com)

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