Technical Data Sheet

SILASTIC™ LCF 9618 Textile Printing

Glossy LSR for textile screen printing

Features & Benefits

- Glossy
- Medium hardness
- High elongation
- Soft, flexible, high strength coating
- Contains no PVC, phthalates, solvents, organotins or formaldehyde
- Ironable
- Easily pigmented

Applications

- Applied for textile screen printing on most natural and synthetic textiles, particularly highly elastic garments

Typical Properties

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

Test[1]	Property	Unit	Result
CTM0050	Viscosity[2]	mPa.s	71,000
CTM0022	Density[3]	g/cm^3	1.10
CTM0099	Hardness (JIS[4]-TYPE-A)[3]		31
CTM0137A	Tensile strength[3]	MPa	7.7
CTM0137A	Elongation[3]	%	537

1. Materials were tested according to Corporate Test Methods (CTM), which in most cases are similar to the related ASTM standard. Copies of CTMs are available on request.
2. Spindle viscometer, No. 6, 10 rpm at 25°C.
3. SILASTIC™ LCF 9618 Liquid Silicone Rubber / DOWSIL™ SRX 212 Catalyst =100/0.2 (equivalent to SILASTIC™ LCF 9618 Liquid Silicone Rubber / SILASTIC™ LCF 9600 Series Textile Printing Ink Catalyst = 100/1.2), 150°C/5 min press cure, 2 mm thickness slab.
4. JIS: Japanese Industrial Standard.

Description

SILASTIC™ LCF 9618 Liquid Silicone Rubber is a one-component (catalyst needs to be added separately), heat cured LSR, suitable for manual / automatic textile screen printing, which has a glossy effect.

Form No. 45-1708-01-1220 S2D

How to Use

According to the requirements of curing speed, SILASTIC™ LCF 9618 Liquid Silicone Rubber could be mixed with SILASTIC™ LCF 9600 Series Textile Printing Ink Catalyst in a ratio of 100: 1.2 w/w ratio. For small volumes it is suitable to manually weigh and mix the components using a propeller mixer. Any air drawn into the mixed material may be removed under vacuum, but in most cases, the air will escape during the printing process. Metermix equipment which pumps, meters, and mixes the two components without the incorporation of air is strongly recommended for production purposes. The curing rate could be accelerated by adding additional 0.5~1% SILASTIC™ LCF 9600 Series Textile Printing Ink Catalyst into the system based on different desire of the curing speed.

Only tested and recommended color concentrates should be used with SILASTIC™ LCF 9618 Liquid Silicone Rubber.

Cure can be inhibited by contact with certain materials such as amines, sulfur and tin complexes. The effect on the printing is to prevent complete cure, with the result that the printing feels sticky. In some cases, this can be recovered by further heating.

Pot Life

When SILASTIC™ LCF 9618 Liquid Silicone Rubber mixed with SILASTIC™ LCF 9600 Series Textile Printing Ink Catalyst in 100: 1.2 w/w ratio, the mixture will remain usable for more than 24 hours at 25°C.

Drying

To build up printing thickness, the printing must be dried to get a tack free surface before another layer is added on top. A conventional infrared (IR) flash dryer will achieve this typically in 3–15 seconds. For fabrics containing high levels of elastic fibers (15–20%) or fabrics with poor sublimation fastness, the printing surface temperature should be kept below 100°C (212°F) to prevent fabric damage or contamination from migrated dyestuff.

Curing

After printing, the printed textile should be oven cured at 120–140°C (248–284°F) for 1-2 minutes to ensure full cure. The cure time depends on the thickness and on the cure temperature used. For sensitive fabrics or energy saving purposes, lower temperatures can be used for longer duration.

Cleaning

After printing, SILASTIC™ LCF 9618 Liquid Silicone Rubber can be removed from equipment using a hydrocarbon-based solvent such as white spirit. Polar solvents are not suitable.

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 DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Usable Life and Storage

When stored at or below 32°C (90°F) in the original unopened containers, this product has a usable life of 360 days from the date of production.

Packaging Information

This product is supplied in pails (16 kg).

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, dow.com or consult your local Dow representative.

Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

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