

SiSiB® SiM4100 Silicone Processing Additive for PVC

INTRODUCTION

SiSiB® SiM4100 is a pelletized modified polysiloxane additive designed to improve the processing and surface properties of PVC compounds.

During processing, the siloxane segments become enriched at the polymer/metal interface under shear, reducing interfacial friction and improving release from processing equipment. The functional organic segments provide compatibility with PVC and help maintain uniform distribution within the compound.

SiSiB® SiM4100 reduces melt viscosity, extrusion torque and processing pressure, resulting in improved processability. It also improves release from metal surfaces, enhances surface gloss and slip, and helps reduce sticking and scorching during high-temperature PVC processing.

At the recommended addition levels, SiSiB® SiM4100 has a low tendency to bloom and typically has little effect on the transparency of PVC articles.

BENEFITS

- Improves PVC processing and melt flow
- Reduces melt viscosity, extrusion torque and processing pressure
- Provides effective processing lubrication
- Improves release from metal surfaces and molds
- Reduce sticking and scorching at elevated processing temperatures
- Improves surface smoothness and gloss
- Imparts slip to finished articles
- Helps improve abrasion and scratch resistance
- Low tendency to bloom at recommended addition levels
- Typically has little effect on transparency at recommended use levels

PHYSICAL PROPERTIES

Color and Appearance	White to pale yellow pellets
Active Content (%):	100
Melting Point (°C)	40-60
Volatile Content (%)	Max. 0.5

These values are typical and not intended for specification purposes.

APPLICATIONS

SiSiB® SiM4100 is suitable for both rigid and plasticized PVC compounds

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processed by calendering, extrusion, injection molding and blow molding. It is particularly recommended for formulations requiring improved processing lubrication, reduced adhesion to metal surfaces, enhanced mold release and better surface finish, especially under elevated processing temperatures.

USAGE GUIDELINES

The recommended addition level of SiSiB® SiM4100 is 0.1-2.0%.

The optimum dosage depends on the PVC formulation, processing conditions and required performance and should be determined by application testing.

Plasticized PVC

Add SiSiB® SiM4100 after the plasticizer and before other powdered additives or fillers. Mix thoroughly to ensure uniform incorporation before adding the remaining ingredients.

Unplasticized PVC

Premix SiSiB® SiM4100 thoroughly with the PVC resin before adding other additives or fillers.

Good dispersion throughout the compound is recommended for optimum performance.

PACKING

SiSiB® SiM4100 is supplied in 25Kg craft paper bag with PE inner liner.

HANDLING

This document does not contain the product safety information required for safe use. Before handling, please refer to the product and safety data sheets, as well as container labels, for information on safe usage, physical hazards, and health risks. Safety Data Sheet is available on the website, from the distributor, or by contacting SiSiB customer service.

STORAGE

When stored in its original unopened packaging in a dry place at room temperature, SiSiB® SiM4100 has a shelf life of 12 months from the date of manufacture.

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NOTE

All information in the leaflet is based on our present knowledge and experience. We reserve the right to make any changes according to technological progress or further developments. Performance of the product described herein should be verified by testing.

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