

SiSiB® SiE6255 Thermoplastic Elastomer

INTRODUCTION

SiSiB® SiE6255 is a silicone-based thermoplastic elastomer developed using dynamic vulcanization technology. Fully vulcanized silicone rubber particles (1–3µm) are finely and uniformly dispersed within a TPU matrix to form a sea-island structure. This unique morphology provides a soft, silky touch while delivering excellent mechanical strength, chemical resistance, and processability. Designed for extrusion applications, it exhibits outstanding skin feel, stain resistance, and long-term non-stick performance.

BENEFITS

- Silky-soft surface feel
- Excellent stain and dust resistance
- Plasticizer-free and non-migrating
- Easy demolding and trim removal
- Outstanding adhesion to PC, ABS, PVC
- Compatible with laser marking, screen printing, pad printing, spraying
- High resilience; Shore A hardness range: 55-90

PHYSICAL PROPERTIES

Appearance:	White to off-white pellets	
Hardness (Shore A):	55	ISO 868: 2003
Specific Gravity:	1.18	ISO 1183-1: 2019
Melt Flow Index:	23.6	ISO 1133-1: 2011
		(g/10min,10kg, 190°C)
Elastic Modulus (MPa):	4.41	ISO 37: 2017
Tensile Strength (MPa):	6.0	ISO 37: 2017
Elongation at Break (%):	578	ISO 37: 2017
100% Modulus (MPa):	2.1	ISO 37: 2017
100% Elastic Recovery (%):	92	ISO 37: 2017
Tear Strength (kN/m):	33	ISO 34-1: 2015

These values are typical and not intended for specification purposes.

APPLICATIONS

SiSiB® SiE6255 is recommended for use in the extrusion of soft-touch components that require durability, cleanliness, and high flexibility. It is especially suitable for products such as headphone cables, synthetic leather films, and other skin-contact film materials where both tactile comfort and surface cleanliness are critical.

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USAGE GUIDELINES

SiSiB® SiE6255 is recommended for extrusion processing. To ensure optimal product performance and appearance, it should be thoroughly dried at 80-90 °C for 2-3 hours prior to processing. Use of a desiccant dryer is strongly recommended to minimize moisture-related defects such as bubbling or surface streaks.

Suggested temperature settings for a typical extrusion process:

Zone 1	150-160°C
Zone 2	170-180°C
Zone 3	180-190°C
Zone 4	180-190°C
Nozzle or Die	180°C

PACKING

SiSiB® SiE6255 is supplied in 25 kg paper-plastic composite bags with a PE inner liner for moisture protection.

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

In the original unopened packaging, SiSiB® SiE6255 has a shelf life of 24 months in a cool and well-ventilated place.

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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