

# SiSiB<sup>®</sup> VP6290

## Vinylsilane Oligomer

### INTRODUCTION

SiSiB<sup>®</sup> VP6290 is an oligomeric siloxane containing vinyl, propyl and ethoxy groups. It is a colorless, almost odorless, low viscosity liquid. SiSiB<sup>®</sup>VP6290 is an excellent silane bridging agent between inorganic fillers (such as kaolin, MDH, ATH) and organic polymers (EPDM, EVA, PE). The application of SiSiB<sup>®</sup>VP6290 in mineral-filled and peroxide cross-linked cable systems improves mechanical and electrical properties, especially when exposed to humid environments. The high boiling point and high flash point of SiSiB<sup>®</sup> VP6290 make it superior to monomeric silane in terms of safety, handling and processing. The amount of ethanol (VOC) released by SiSiB VP6290 is much less than that of monomeric silane.

### TYPICAL PHYSICAL PROPERTIES

Appearance	Colorless Liquid
Boiling Point	>255°C
Specific gravity	Approx.1
SiO <sub>2</sub> Content	Approx.42
Flash Point	>70°C
Viscosity	3-7 cSt

### APPLICATIONS

SiSiB<sup>®</sup> VP6290 is excellent as an adhesion promoter, dispersion and hydrophobation agent in mineral filled compounds. The silicon-functional ethoxy groups of SiSiB<sup>®</sup> VP6290 hydrolyse in the presence of moisture, which is usually present on the filler surface, forming active silanol groups. The condensation of these silanol groups with hydroxyl groups on the filler surface leads to a tight chemical bond between SiSiB<sup>®</sup> VP6290 and the filler. The vinyl functional end of SiSiB<sup>®</sup> VP6290 can be coupled to the polymer in a further reaction that runs parallel to peroxide crosslinking.

A major field of application for mineral-filled compounds is the cable industry. EPDM and kaolin can be processed into cable compounds through the adhesion promoting and hydrophobic effects of SiSiB<sup>®</sup> VP6290. It can also be used in the manufacture of halogen-free, non-toxic, environmentally-friendly flame retardant compounds (HFFR) based on EVA or PE and ATH or MDH. In addition, SiSiB<sup>®</sup>VP6290 can be used in many other applications such as filler and pigment treatment, use in dispersions etc.

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### PACKING AND STORAGE

SiSiB<sup>®</sup> VP6290 is supplied in 25Kg drum, 200kg steel drum or 900Kg IBC.

Store in a cool and dry place out of direct sunlight.

### NOTES

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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Please send all technical questions concerning quality and product safety to: [silanes@SiSiB.com](mailto:silanes@SiSiB.com).