# Ddev Plastiks Industries Limited



## **TECHNICAL DATA SHEET**

## KI – 38 ST1 : Low Smoke, Low Halogen, Flame Retardant PVC Cable Compound

#### **Description:**

**KI - 38 ST1** is a Low Smoke, Low Halogen, Flame Retardant Compound for Sheathing applications in a wide variety of cables. **KI - 38 ST1** is formulated with a high quality resin with special plasticizer, stabilizers and flame retardant chemicals. Smoke and HCL absorbers are added so that emission of smoke and HCL are limited to low levels when the cable burns.

#### **Typical Properties:**

Cable manufactured with **KI - 38 ST1** according to standard manufacturing process meets IEC 60502 and IS: 5831/2001.

Property		Unit	Test Method	KI – 38 ST1
Sp. Gravity @27°C			ASTM - D - 792	1.53 ± 0.03
Hardness @27°C		Shore A	ASTM - D 2240	93 ± 2
Thermal Stability@200°C		Minutes	IS : 10810 (60)	≥ 150
Tensile Strength (TS) @27°C		MPa	IS: 10810 (7)	≥ 14.5
Elongation at Break (E.B) @27°C		%	IS: 10810 (7)	≥ 150
Ageing Test	Temperature	°C		80
	Duration	Hr		168
Variation of T.S		%	IS: 10810 (11)	± 12.0
Variation of E.B		%	IS: 10810 (11)	± 12.0
Mass Loss on Ageing		mg/cm <sup>2</sup>	IS : 10810 (10)	1.25
Volume Resistivity @27°C		Ohm - cm	IS: 3396 / 79	NA
Limiting Oxygen Index		%	IS: 10810 (58)	≥ 32.0
Temperature Index		οС	IS: 10810 (64)	≥ 260
Smoke Density Rating		%	ASTM - D 2843	≤ 56
Halogen Acid Gas Emission		%	IS: 10810 (59)	≤ 20.0

<sup>\*</sup> Test specimen made after milling the granules and then in compression moulded at 160 °C for 10 min with 200kg / cm2hydraulic pressure

#### Processing:

**KI – 38 ST1** can be processed on any good extruder designed for PVC at temperature in the range of  $140^{\circ}$ C- $180^{\circ}$ C. This is the guideline temperature range, actual temperature should be determined by the user depending upon the other processing variables. The screw must have a good homogenizing capacity. Preheating of granules at  $80+/-5^{\circ}$ C is alwaysadvisable for better processing.

### Packaging:

**KI – 38 ST1** is available in the form of free flowing pellets and supplied in green colour bags with sealed double layer PE linerto prevent moisture. The finished bag weight is 25 kg woven sacks bag

Material should be store in moisture free cool & dry place.

#### Safety: KI – 38 ST1 is not classified as a dangerous product group.

The information and recommendations contained in this bulletin are, to the best of our knowledge, accurate and reliable but no guarantee of their accuracy is made. These are all the typical values only and subject to change without prior intimation. The product is sold upon condition that purchaser should make their own tests to determine the suitability of such product of their particular purpose and purchasers assume all risks and liability for the results of the use of the product.

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