

# KI - 90 FR: Flame retartdant PVC Cable Compound(TI-3 /TM3 as per BS 7655)

## **Description:**

**KI – 90FR** is a heat resistant flame retardant compound for insulation applications in a wide variety of cables.

**KI – 90FR** is formulated with a high quality resin with plasticizers, stabilizers and flame retardant chemicals.

## **Typical Properties:**

Cable manufactured with **KI – 90FR** according to standard manufacturing process meets BS: 7655 specification.

Property		Unit	Test Method	KI – 90FR
Sp. Gravity @27°C			ASTM - D - 792	1.39 ± 0.03
Hardness @27°C		Shore A	ASTM - D 2240	92 ± 2
Thermal Stability@200°C		Minutes	IS: 10810 (60)	≥ 240
Tensile Strength (TS) @27°C		MPa	IS: 10810 (7)	≥ 15.0
Elongation at Break (E.B) @27°C		%	IS: 10810 (7)	≥ 200
Ageing Test	Temperature	$^{0}$ C		135
	Duration	Hr		336
Variation of T.S		%	IS: 10810 (11)	≤ ± 25.0
Variation of E.B		%	IS: 10810 (11)	≤ ± 35.0
Mass Loss on Ageing		mg/cm <sup>2</sup>	IS: 10810 (10)	≤ 1.15
Volume Resistivity @27°C		Ohm - cm	IS: 3396 / 79	≥ 1x10 <sup>14</sup>
Limiting Oxygen Index		%	IS: 10810 (58)	≥ 29.0
Temperature Index		₀C	IS: 10810 (64)	≥ 250

<sup>\*</sup> Test specimen made after milling the granules and the compression moulded at 160 °C for 10 min with 200kg / cm² hydraulic pressure

### **Processing:**

**KI – 90FR** can be processed on any good extruder designed for PVC cable extrusion at temperature in the range of  $140^{\circ}$ C-  $180^{\circ}$ C. This is the guideline temperature range, actual temperature should be optimized 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 always advisable for better processing.

## Packaging:

**KI – 90FR** is available in the form of free flowing pellets and supplied in bags with sealed double layer PE liner to prevent moisture. The finished bag weight is either 25 kg woven sacks bag or in 1000kg jumbo bags.

#### Storage:

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

### Safety:

**KI – 90FR** 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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