

## TECHNICAL DATA SHEET

### **KI – 33 OR : Oil resistant, Low Smoke, Low Halogen, Flame Retardant PVC Cable Compound**

#### **Description:**

**KI – 33OR** is a Oil resistant, Low Smoke, Low Halogen, Flame Retardant Compound for Sheathing applications in a wide variety of cables. **KI – 33OR** 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. Special additives are added to make the compound resistant from petrochemicals oils.

#### **Typical Properties:**

Cable manufactured with **KI – 33OR** according to standard manufacturing process meets IEC 60502 and IS: 5831/2001.

Property	Unit	Test Method	KI – 33OR
Sp. Gravity @27 <sup>o</sup> C		ASTM - D – 792	1.52 ± 0.03
Hardness @27 <sup>o</sup> C	Shore A	ASTM - D 2240	93 ± 2
Thermal Stability@200 <sup>o</sup> C	Minutes	IS : 10810 (60)	≥ 100
Tensile Strength (TS) @27 <sup>o</sup> C	MPa	IS : 10810 (7)	≥ 13.0
Elongation at Break (E.B) @27 <sup>o</sup> C	%	IS : 10810 (7)	≥ 200
Ageing Test	Temperature	°C	100
	Duration	Hr	168
Variation of T.S	%	IS : 10810 (11)	≤ ±20.0
Variation of E.B	%	IS : 10810 (11)	≤ ±20.0
Mass Loss on Ageing	mg/cm <sup>2</sup>	IS : 10810 (10)	1.25
Oil Ageing Test	Temperature	°C	100
	Duration	Hr	24
Variation of T.S	%	IS : 10810 (31)	≤ ±25.0
Variation of EB	%	IS : 10810 (31)	≤ ±30.0
Volume Resistivity @27 <sup>o</sup> C	Ohm - cm	IS : 3396 / 79	NA
Limiting Oxygen Index	%	IS : 10810 (58)	≥ 31.0
Temperature Index	°C	IS : 10810 (64)	≥ 260
Smoke Density Rating	%	ASTM – D 2843	≤56
Halogen Acid Gas Emission	%	IS : 10810 (59)	≤ 20.0

\* Test specimen made after milling the granules and then in compression mould at 160°C for 10 min with 200kg/cm<sup>2</sup> hydraulic pressure

**Colour:** Natural

#### **Processing:**

**KI – 33 OR** can be processed on any good extruder designed for PVC at temperature in the range of 140<sup>o</sup>C-180<sup>o</sup>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<sup>o</sup>C is always advisable for better processing.



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### **Packaging:**

**KI – 33 OR** is available in the form of free flowing pellets and supplied in green colour 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 – 33 OR** 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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