

# Ddev Plastiks Industries Limited

### **TECHNICAL DATA SHEET**

### KI - 33 M7 INS A: Low Smoke, Low Halogen, Flame Retardant PVC Cable Compound

### **Description:**

**KI — 33M7 INS A** is a Low Smoke, Low Halogen, and Flame-Retardant Compound for insulation applications in a wide variety of cables.

**KI – 33M7 INS A**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.

### **Specification**

• IS 5831: Type A (FR-LSH)

**Colour:** Natural/as per requirement

### **Typical Properties:**

Property		Unit	Test Method	Typical value	
Sp. Gravity @27 <sup>0</sup> C			ASTM - D - 792	1.52 ± 0.03	
Hardness @27°C		Shore A	ASTM - D 2240	93 ± 2	
Thermal Stability@200°C		Minutes	IS: 10810 (60)	≥ 120	
Tensile Strength (TS) @27°C		MPa	IS: 10810 (7)	≥ 16.0	
Elongation at Break (E.B) @27°C		%	IS: 10810 (7)	≥ 200	
Ageing Test	Temperature	°C		80	
	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)	≤ 2.0	
Volume Resistivity @27°C		Ohm - cm	IS: 3396 / 79	5 x 10 <sup>14</sup>	
Limiting Oxygen Index		%	IS : 10810 (58)	≥ 32.0	
Temperature Index		°C	IS: 10810 (64)	≥ 270	
Smoke Density Rating		%	ASTM - D 2843	≤ 60	
Halogen Acid Gas Emission		%	IS: 10810 (59)	≤ 20.0	

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

Above Values are Typical value of Compound and customer need to check before accepting the TDS.



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### **Processing:**

**KI – 33 M7 INS A** can be processed on any good extruder designed for PVC cable extrusion at temperature in the range of  $130^{\circ}$ C-  $170^{\circ}$ 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  $70+/-5^{\circ}$ C is always advisable for better processing. To get a desired performance Extrusion condition and Machine suitability for processing is very critical & need to take care.

Temperature profile

<b>Z1</b>	<b>Z2</b>	<b>Z3</b>	<b>Z4</b>	<b>Z5</b>	CL	NECK	HEAD	DIE
135	140	145	150	155	160	160	165	170

Screen pack of 40/60 in breaker. Low compression screw advised.

### Packaging:

**KI – 33 M7 INS A** is available in the form of free-flowing pellets and supplied in green color 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 M7 INS A** 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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