

**NATURAL HDPE INSULATION COMPOUND:**

**KI –IN – 0366**

**DESCRIPTION :**

KI-IN-0366 is a natural, colourable High Density Polyethylene (HDPE) insulation Compound and is well suited for communication and energy cables.

KI-IN-0366 has excellent stress crack resistance and tensile properties. It contains metal deactivators to ensure excellent resistance to thermal ageing of insulation cores.

**SPECIFICATIONS :**

KI-IN-0366 conforms: ST-7 of IEC-60502 / 60840 except Carbon Black content.

**TYPICAL PROPERTIES:**

| Properties  | Unit                 | Typical Value       | Test Method                             |
|---|----------------------|---------------------|---|
| Density   | gm / cm <sup>3</sup> | 0.945               | ASTM D-792                              |
| Melt flow index @ 190°C / 2.16 kg load                          | gm / 10 min          | 0.50                | ASTM D-1238                             |
| Oxidation Induction Time  | Minutes              | > 100               | ASTM-D-3895                             |
| Tensile Strength at break                                       | MPa                  | >20.0               | ASTM-D-638                              |
| Elongation at Break   | %                    | > 800               | ASTM-D-638                              |
| ESCR  | Hrs.                 | > 1000              | ASTM-D-1693                             |
| Oven ageing at 110 °C, 14 Days<br>Variation in Tensile Strength | %                    | ± 20                | IS-10810 Part-11/IEC<br>60811-401<br>DO |
| Variation in Elongation at Break                                | %                    | ± 20                |   |
| Volume Resistivity@25°C   | Ohm-cm               | >1x10 <sup>15</sup> | ASTM-D-257                              |
| Di-electric Strength  | KV/mm                | > 25                | ASTM-D-149                              |
| Di-Electric Constant @25°C                                      | -                    | 2.3                 | ASTM-D-150                              |
| Dissipation Factor @25°C  | -                    | 0.0004              | ASTM-D-150                              |

*All properties have been determined from compression moulded plaque after 24 hours conditioning.*

**PRE DRYING :** Dehumidified hopper drying at 70°C for 1 to 2 hours prior to extrusion may be used to remove moisture. Specific processing conditions depends on type / size of the extruder and cable dimension and output.

**PROCESSING CONDITIONS :**

| Position | Temperature (°C) |
|----------|------------------|
| Barrel   | 180 - 200        |
| Head     | 200 - 220        |
| Die      | 230              |

**PACKAGE**

: 25 kg packed woven sack bags containing inner PE liners, other packing to Customers' specific requirements are also available.

**STORAGE**

: Shelf life of the products is 12 months from the date of production subject to following condition:  
Storage should be in cool & dryn place. Bags should be kept on wooden or plastic pallets.

*The information given in the document is believed to be reliable and is given in the good faith but without warranty. The user should test the product to ascertain the suitability for the intended use. Product specification or the whole document is subject to change without any prior notice.*