

**NATURAL LDPE INSULATION COMPOUND:**

**KI-IN-0588**

**DESCRIPTION:**

KI-IN-0588 is a low density Polyethylene based Insulation Compound, specially formulated for Polyethylene insulated cables. An enriched additive package of antioxidant and metal deactivator ensures its thermal stability during processing as well as thermal ageing of insulated cores with copper conductor.

**TYPICAL PROPERTIES:**

| Properties                          | Unit              | Typical Value       | Test Method                    |
|-------------------------------------|-------------------|---------------------|--------------------------------|
| Density                             | g/cm <sup>3</sup> | 0.920               | ASTM-D-792                     |
| MFI@190°C, 2.16 kg load             | g/10 Minutes      | 0.3                 | ASTM-D-1238                    |
| Oxidation Induction Time            | Minutes           | 45                  | ASTM-D-3895                    |
| Tensile Strength at break           | MPa               | 15                  | ASTM-D-638                     |
| Elongation at break                 | %                 | >600                | ASTM-D-638                     |
| ESCR                                | Hrs               | > 48                | ASTM-D-1693                    |
| 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                     |
| Hardness                            | Shore D           | 45-46               | ASTM-D-2240                    |
| Oven ageing at 100°C, 240 hours     |                   |                     |                                |
| a) Variation in Tensile Strength    | %                 | ±20                 | IS-10810 Part-11/IEC 60811-401 |
| b) Variation in Elongation at Break | %                 | ±20                 | DO                             |

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

**PREDRYING:**

Dehumidified Air-drying at 70 60811-401°C for 1 to 2 hours prior to extrusion may be used to remove moisture.

**PROCESSING CONDITIONS:**

| Barrel Position | Temperature, °C |
|-----------------|-----------------|
| Barrel          | 160-180         |
| Head            | 180-200         |
| Die             | 200-220         |

**Specific processing conditions depends on type/size of the extruder and cable dimension and output**

**PACKING:**

25 Kg packed woven sack bags containing inner PE liners, other packing to customer's specific requirements are also available.

**STORAGE:**

Shelf life of the product is 12 months from the date of production subject to following condition:

Storage should be in cool and dry 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 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.*