

***FLXT***  
***PRODUCT SPECIFICATION***  
**FLXT230s**

**SCOPE:**

**FLXT230s** is a grade of crosslinkable PE that should be crosslinked with **FLXT150ca** (it's catalyst) and use as insulating material for low and medium voltage up to 6 kv cables.

The **FLXT230s** base material in combination with the **FLXT150ca** catalyst master batch will accelerate the moisture – induced crosslinking reaction in a sauna or hot water bath and is designed for insulation of low and medium voltage cables. The base material **FLXT230s** is based upon a cost optimized low density polyethylene.

**FLXT230s** contains permanent scorch retardant additives which ensure safe processing and gives a possibility to use a highly active crosslinking catalyst. Additionally **FLXT150ca** contains antioxidant, metal deactivator and a drying agent. When properly mixed addition of 5 parts of **FLXT150ca** to 95 parts of **FLXT230s** an insulation with excellent thermo – oxidative stability also in contact with copper as well as aluminum , is achieved.

**SPECIFICATIONS:**

The catalyst master batch **FLXT150ca** in combination with the base material **FLXT230s** meets applicable requirements given below when processed using sound extrusion practice and testing procedures:

- ICEA S – 66 – 524
- CSA PW 90
- ASTM D 1248
- IEC 60502
- DIN 57207

**ELECTRICAL PROPERTIES:**

| Characteristic               | Typical value  | Unit        | Test method |
|------------------------------|----------------|-------------|-------------|
| Dielectric constant ( 50 HZ) | 2.3            | -----       | IEC 60250   |
| Dissipation factor ( 50 HZ)  | 0.0004         | -----       | IEC 60250   |
| DC Volume Resistivity        | $\geq 10^{16}$ | $\Omega.cm$ | IEC 60093   |
| Dielectric strength          | > 22           | Kv/mm       | IEC 60243   |

**PHYSICAL AND MECHANICAL PROPERTIES:**

| Characteristic  | Typical value | Unit              | Test method              |
|---|---------------|-------------------|--------------------------|
| Density (23°C)  | 0.92          | g/cm <sup>3</sup> | IEC 60811-1-3&ASTM D1505 |
| MFI ( 190°C , 2.16 kg )                                     | 0.5           | g/10 min          | ISO 1133                 |
| Tensile strength  | 15            | Mpa               | IEC 60811-1-1            |
| Elongation  | > 400         | %                 | IEC 60811-1-1            |
| Change of tensile properties after aging ( 135°C , 168 hr ) | 10            | %                 | IEC 60811-1-2            |
| Hot Set test (200°C , 0.2 Mpa)                              |               |                   |                          |
| Elongation under load                                       | 60            | %                 | IEC 60811-2-1            |
| Permanent deformation                                       | 5             |                   | IEC 60811-2-1            |
| Shrinkage   | 4 (Max)       | %                 | IEC 60811-1-3            |

**CROSSLINKING:**

FLXT230s / FLXT150ca can be crosslinked by immersion in hot water or exposed to low pressure steam at a temperature of up to 90°C. This time period may be varied due to the humidity, thickness of insulation, real size and temperature.

Example: FLXT230s / FLXT150ca, time to reach Hot Set elongation value of 100% at 90°C and sauna or water bath.

| Insulation thickness (mm) | hr |
|---------------------------|----|
| 0.7                       | 4  |
| 1.8                       | 6  |

**PACKING AND DELIVERY:**

**- FLXT230s**

**Form:** Granules  
**Package:** In 25 kg strong vacuumed aluminum bags that protected from moisture ingress.

**- FLXT150ca**

**Form:** Granules  
**Package:** In 1.25 kg strong aluminum bags that protected from moisture ingress

**MARKING:**

The following points almost clearly be marked on each container:

- Product's name
- Weight
- Company's specification number
- Lot number
- Date of production:

**SAFETY:**

FLXT230s / FLXT150ca is not classified as a dangerous preparation. Handling and transport of the products may generate some dust and fines which constitute a potential hazard for dust explosion. The products are intended for industrial use only. A safety data sheet is available on request. Please contact us for more details on various aspects.