

## LDPE ALCUDIA<sup>®</sup> CP-121

### DESCRIPTION

ALCUDIA<sup>®</sup> CP-121 is high molecular weight, low density polyethylene compound designed for telephone and coaxial cables. This product provides a superior performance at high-speed extrusion together with a smooth surface finish of the cable. This grade contains a special stabilization system for protection against thermal and shear degradation during processing and it also contains a metal deactivator to ensure long-term ageing properties.

### TYPICAL APPLICATIONS

Solid insulation for telephone cables

It is recommended a temperature profile between 150 – 220°C. Optimal processing conditions must be tuned for each production line, recommending to use filters and a break plate to increase the pressure in the cylinder and consequently improve the cable quality, homogenization and dispersion of pigments in the case of colored cable

ALCUDIA<sup>®</sup> CP-121 meets the following specifications: ISO 1872 PE KHN 23D003; ASTM D 1248 I, A5, Grade E5; NF C 32-060 ISM1; VDE 0207 Teil 2 2411.

| PROPERTIES  | VALUE | UNIT              | TEST METHOD |
|---|-------|-------------------|-------------|
| <b>Generales</b>  |       |                   |             |
| Melt Flow rate (190°C/2,16 kg)                                | 0.35  | g/10 min          | ISO 1133    |
| Density at 23°C   | 921   | kg/m <sup>3</sup> | ISO 1183    |
| Oxidation Induction Time (200°C)                              | >30   | min               | UNE EN 728  |
| <b>Mechanical</b>   |       |                   |             |
| Tensile Strain at Break                                       | 16    | MPa               | ISO 527-2   |
| Elongation at break   | 600   | %                 | ISO 527-2   |
| Retention of mechanical properties after ageing 100°C/10 days | ≥70   | %                 | ISO 527-2   |
| <b>Thermal</b>  |       |                   |             |
| Brittleness temperature (-76°C)                               | 0     | failures          | ASTM D 746  |
| Vicat Softening Temperature (10 N)                            | 96    | °C                | ISO 306     |
| <b>Electrical</b>   |       |                   |             |
| Dielectric Constant (1 MHz)                                   | 2.3   | -                 | ASTM D 1531 |
| Dielectric Dissipation Factor (1 MHz)                         | 3E-4  | -                 | ASTM D 1531 |
| Volume Resistivity DC at 23°C                                 | >1E16 | ohm-cm            | ASTM D 257  |

### STORAGE

ALCUDIA<sup>®</sup> CP-121 should be stored in a dry atmosphere, on a paved, drained and not flooded area, at temperatures under 50°C and protected from UV radiation. Storage under inappropriate conditions could initiate degradation processes which may have a negative influence on the processability and the properties of the transformed product.

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