

ANTISTATIC BELT CONVEYORS WITH LATISTAT



The rail consists of a sheet metal guide on which the rings are mounted by means of metal pins in order to obtain a perfect electrical continuity that allows to ground any electrostatic charges.

Dinalager's goal was compliance with the European ATEX standards, which provide for materials a maximum surface resistivity of 10^9 ohm.

With LATISTAT 47/7-03, surface resistivity is about 10^2 ohm, so a wide safety margin is available.

The selected compound is made from PP copolymer featuring excellent impact resistance, ease of processing, anhygroscopicity, and is suitable for working temperatures up to 80°C.

Antistaticity is obtained by filling the thermoplastic matrix with a special carbon black. The morphology of its particles provides high conductivity with a low filling quantity.

There are countless situations in which the presence of electrostatic charges is a problem for both the safety of persons and the integrity and functionality of electrical and electronic devices.

It is known that the formation of even high voltage electrostatic potentials may be generated by the fretting of two surfaces made of materials of which at least one is electrically insulating.

To avoid the risks connected with the triboelectric effect described above, the company **Dinalager** based in Terrassa (Barcelona) has chosen LATISTAT 47/7-03 for the manufacture of the wheels of its minirails used in belt conveyors for the handling of light loads.

This allows to preserve a good part of the mechanical strength of the matrix, which is an essential aspect for a wheel supporting the stresses arising from the handling of packages and the change of feed direction.

LATI's range of electrically conductive compounds includes several hundreds of grades developed from any thermoplastic polymer modified by the addition of carbon black, graphite, and carbon fibers and nanotubes.

LATI engineers are at disposal for advice about the solution that best meets not only electrical project requirements.