



# MAKROPLUS®

## A \* L \* N \* NA

### MAKROPLUS series A

is an antistatic additive masterbatch which in the concentration range of 1 to 4% wt. reduces surface resistance and consequently prevents charge build up on the surface of plastic articles. Products treated in his way do not attract dust from the environment.

The efficiency of **MAKROPLUS A** is considerably higher at higher relative humidity of environment (above 50 %).

### MAKROPLUS series L

is a lubricant masterbatch , which at the let-down ratio of up to about 2% wt. eases plastics processing.

In principle, lubricants decrease internal friction in the melt and thus prevent its overheating. At the same time they prevent die-lip deposits formation and make easier demoulding of final articles.

Due to these improvements it is possible to increase processing productivity of plastics without build up internal stress in the final products.

### MAKROPLUS series N

is an organic nucleating agent masterbatch.

The presence of the nucleating agent at the let-down ratio in the range of 3 to 5 % wt. accelerates considerably polypropylene crystallization and reduces the size of spherulites.

Nucleating effect manifests itself in:

- a considerable increase of article transparency, which is mainly observed on injection molded articles with wall thicknesses below 1 mm and also on blow molded items exposed to increased orientation. In both cases the described effect is enhanced when highly polished molds are used.
- an improved mechanical properties, particularly of flexural modulus
- a reduced cooling time of individual processing technologies

When polypropylene is processed with the addition of this masterbatch, the processing melt temperature has to be kept above 210°C.

### MAKROPLUS series NA

is a combined masterbatch which contains both organic nucleating agent and antistatic additive.

This product exhibits optimum performance of both masterbatches of series A and N.

Recommended let-down ratio is from 3 to 5 %wt.

### Health Safety

The **MAKROPLUS** masterbatches are made out of the raw material which comply with The Direction of Ministry of Health of Czech Republic No. 38/2001 Sb. "Hygienic Regulation of Hygienic Requirements for Articles which may come into Contact with Foodstuffs"