



KETTLITZ-Antitack BTO-31 LF

- technical leaflet -

Magnesium stearate dispersion of high efficiency. Due to its additives (detergents, anti rust and anti foam agents) it can be used in batch-off systems (dip tank or spraying system) as well as for Barwell equipment.

Antitack BTO-31 LF does not contain any heavy metal ions and can therefore replace zinc stearate dispersions to prevent environmental pollution. This antitack agent was developed considering latest ecological aspects. An independent institute stated in an official certificate a micro-biological degradability (OECD-301 c Miti-Test) of 85 % within 14 days.

The pure magnesium stearate, which is used for Antitack BTO-31 LF, has a melting point of 135 °C, but the material, which remains on the surface of treated unvulcanized rubber sheets or strips, already melts at approx. 90 °C. After melting it penetrates into the rubber compound and does not influence the physical properties or rubber-metal (or rubber-textile) bonding, if recommended dilution ratios are applied. Better demolding properties of the vulcanized articles can be expected (cracking temperature of magnesium stearate > 350 °C).

This can also be expected if Antitack BTO-31 LF is used for Barwell equipment. No mold fouling or negative influence on surface quality of treated rubber parts will occur.

Antitack BTO-31 LF is also used for the treatment of profiles or hoses after extrusion to avoid sticking before and during vulcanization (e. g. in autoclaves).

Due to special additives the concentration of the dispersion can be evaluated by conductivity. Therefore the work-intensive determination of the dry residue can be nearly eliminated. When an automatic dosing system is connected to the conductimeter, a continuous running of the batch-off system at a stable concentration can be achieved.

Many well known companies already have Antitack BTO-31 LF in use and confirmed the excellent properties of this product. The most important points they mentioned were:

- the surface of treated rubber parts seems to be clean even at a dilution ratio of 1:10, due to the very fine particle size of the used magnesium stearate and the excellent stability of the dispersion
- no foaming problems
- pollution of batch-off-equipment (crusts, "stalactites") is minimized compared to the use of "normal" antitack agents based on zinc stearate or products containing fillers (e. g. silica, chalk, bentonite)
- due to the excellent efficiency, Antitack BTO-31 LF can be used at high dilution rates. This results in lower costs for material and cleaning periods.

Dilution ratio for first tests: 1:15 (Antitack BTO-31 LF:H₂O)

We propose to mix the concentrated antitack agent with water in a ratio of 1:1 first and to dilute it afterwards.

It is also recommended to stir the concentrated Antitack BTO-31 LF before use. A decrease in viscosity will result (thixotropic effect).

Properties

Chemical Characteristics		magnesium stearate in combination with detergents, antirust and antifoam agents
Appearance		white paste of medium viscosity
Density at 20 °C	(g/cm ³)	approx. 1.02 (mathematically)
Dry Matter (0.5 g/15 min./109 °C)	(%)	29.0 ± 2.5
pH-value at 20 °C (dilution ratio 1 + 10)		9.5 ± 1.0
Physiol. Behavior		see safety data sheet
Storage Stability		2 years in originally sealed drums
Packing		plastic drums containing 100 kg net or in one-way containers with 800 kg net content