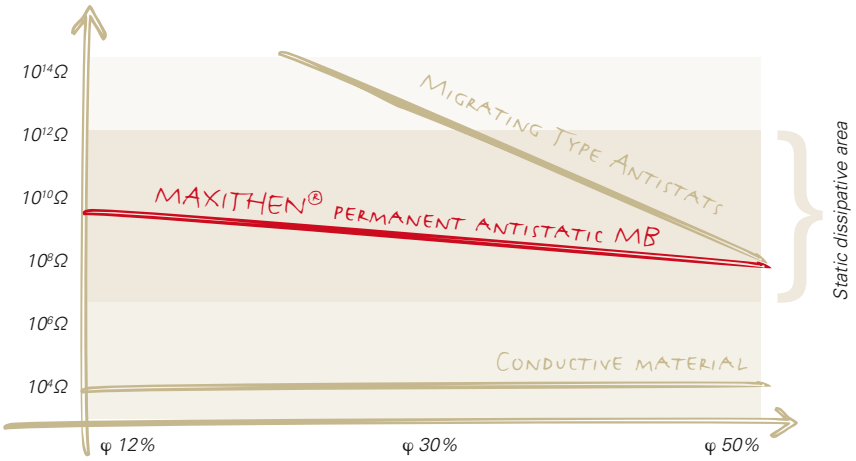
BRINGING LIFE TO PLASTICS

permanent ANTiSTATiC

PERMANENT ANTISTATIC MASTERBATCHES

PLASTICS ARE GENERALLY VERY GOOD INSULATORS, THAT PREVENT EFFECTIVE GROUNDING OF THE STATIC ELECTRICITY CAUSED BY FRICTION FROM THE THE HIGH SURFACE RESISTANCE OF THERMOPLASTICS. THE CHARGE THEREFORE REMAINS ON THE SURFACE OF THE PLASTIC AND LEADS TO A SERIES OF PROBLEMS AND EVEN POTENTIAL DANGERS.

MAKES FILMS AND FIBRES EASIER TO PROCESS



MAXITHEN® permanent antistatic masterbatches offer reliable electrostatic discharge (ESD) in all conditions

_ An electrical discharge during a production process that comes in contact with flammable substances such as gas or fine powders can result in an explosion or fire.

_ Films, tapes or fibres adhere to each other due to an electrostatic charge making them difficult to process or to fill.

_ An object packed in plastic or the plastic packaging itself attracts dust and become less optically appealing, reducing its value at point of sale.

_ Sensitive electronic devices or components such as microchips that are not transported in antistatic packaging can be permanently damaged by electrical discharge.

Most polymers demonstrate a surface resistance of $>10^{12}$ Ohm and in general around 10^{16} Ohm. Through the addition of MAXITHEN® permanent antistatic masterbatches, this can be decreased down as far as 10^{10} Ohm. This effect is permanent, independent of the relative air humidity and the active substances do not leach to the surface of the polymer. The diagram above shows a comparison between MAXITHEN® and migrating antistatics at different relative air humidities, based on usage in a co-extruded film.

MAXITHEN® HP7AA5370AS
Permanent antistatic masterbatch for thin and thick wall PE and PP objects.

MAXITHEN® HP7AA5380AS
Permanent antistatic masterbatch for thin and thick wall PS, PC, PET, POM objects.

Dispersion of MAXITHEN® into a customer-specific polymer creates an interpenetrating polymer network (IPN) that increases the conductivity of the polymer and reduces the negative partially charged state.

THE ADVANTAGES OF GABRIEL-CHEMIE PERMANENT ANTISTATIC MASTERBATCHES:

_ Non-leaching
_ Permanent grounding of static charge-states
_ No contamination of packaged objects
_ No surface adhesion
_ Still effective below 30% relative air humidity
_ Unlimited shelf-life
_ Efficient and rapid processing
_ Improved performance for printing or gluing on the polymer surface compared to leaching systems

MAXITHEN® permanent antistatic masterbatches are suitable for injection moulding and extrusion processes including on blown film lines and numerous other applications, in accordance with the recommendations and guidelines in our technical documentation.

BUSINESS UNITS OF GABRIEL-CHEMIE GROUP:

Building & Agriculture

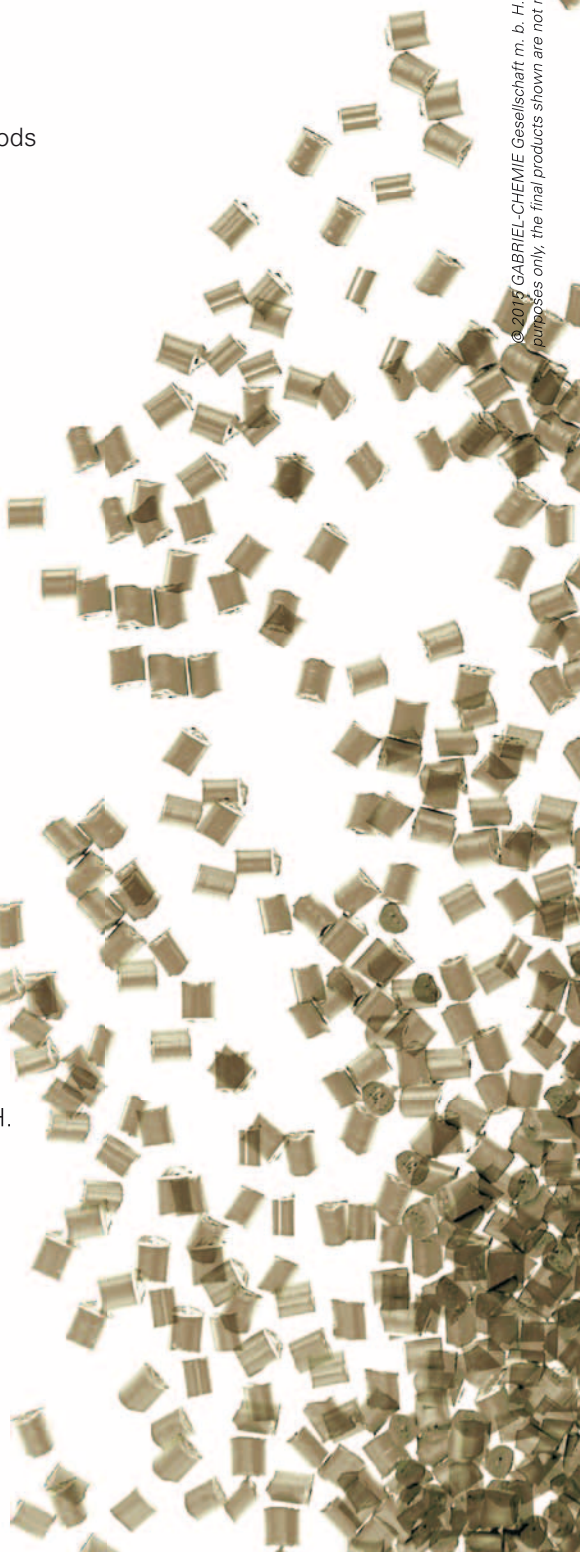
Home & Lifestyle

Packaging for Industrial & Consumer Goods

Cosmetics Packaging

Food & Beverage Packaging

Medical



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